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As confidentially submitted to the Securities and Exchange Commission on October 8, 2021. This draft registration statement has not been publicly filed with the Securities and Exchange Commission and all information herein remains confidential.

Registration No. 333-

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM S-1  
REGISTRATION STATEMENT

Under  
The Securities Act of 1933

**VIGIL NEUROSCIENCE, INC.**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)

2836  
(Primary Standard Industrial  
Classification Code Number)

85-1880494  
(I.R.S. Employer  
Identification Number)

300 Technology Square, 8<sup>th</sup> Floor  
Cambridge, MA 02139  
(857) 254-4445

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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**Approximate date of commencement of proposed sale to the public:** As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer  Accelerated Filer   
Non-Accelerated Filer  Smaller Reporting Company   
Emerging Growth Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of each Class of Securities to be Registered	Amount to be Registered	Proposed Maximum Aggregate Offering Price <sup>(1)(2)</sup>	Amount of Registration Fee <sup>(3)</sup>
Common Stock, par value \$0.0001 per share		\$	\$

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.

(2) Includes the offering price of shares that the underwriters may purchase pursuant to an option to purchase additional shares.

(3) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED OCTOBER 8, 2021  
PRELIMINARY PROSPECTUS

Shares



Common Stock

We are offering \_\_\_\_\_ shares of our common stock. This is our initial public offering and no public market currently exists for our common stock. We expect the initial public offering price to be between \$ \_\_\_\_\_ and \$ \_\_\_\_\_ per share. We intend to apply to list our common stock on The Nasdaq Global Market under the symbol "VIGL."

We are an "emerging growth company" and "smaller reporting company" as defined under the U.S. federal securities laws and will be subject to reduced public company reporting requirements for this prospectus and future filings. See "Prospectus Summary—Implications of Being an Emerging Growth Company and a Smaller Reporting Company."

Investing in our common stock involves a high degree of risk. Please see "[Risk Factors](#)" beginning on page 12 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	<u>Per share</u>	<u>Total</u>
Initial public offering price		
Underwriting discounts and commissions (1)	\$	\$
Proceeds, before expenses, to us	\$	\$

(1) See "[Underwriting](#)," beginning on page 201 of this prospectus for additional information regarding underwriting compensation.

We have granted the underwriters an option for a period of 30 days from the date of this prospectus to purchase an additional \_\_\_\_\_ shares of common stock.

The underwriters expect to deliver the shares of common stock against payment in New York, New York on or about \_\_\_\_\_, 2021.

Morgan Stanley

Jefferies

Stifel

Guggenheim Securities

Prospectus dated \_\_\_\_\_, 2021.

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Neither we nor the underwriters have authorized anyone to provide any information other than that contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We and the underwriters are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations, and prospects may have changed since that date.

For investors outside of the United States: We have not, and the underwriters have not, done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe, any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside of the United States.

The market data and certain other statistical information used throughout this prospectus are based on independent industry publications, governmental publications, reports by market research firms, or other independent sources that we believe to be reliable sources. Industry publications and third-party research, surveys, and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. We are responsible for all of the disclosure contained in this prospectus, and we believe that these sources are reliable; however, we have not independently verified the information contained in such publications. While we are not aware of any misstatements regarding any third-party information presented in this prospectus, their estimates, in particular, as they relate to projections, involve numerous assumptions, are subject to risks and uncertainties, and are subject to change based on various factors, including those discussed under the section entitled "Risk Factors" and elsewhere in this prospectus. Some data are also based on our good faith estimates.

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**PROSPECTUS SUMMARY**

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our consolidated financial statements and the related notes included elsewhere in this prospectus. You should also consider, among other things, the matters described under “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” in each case appearing elsewhere in this prospectus. Unless the context otherwise requires, the terms “Vigil,” “the Company,” “we,” “us,” and “our” in this prospectus refer to Vigil Neuroscience, Inc. and its wholly owned, consolidated subsidiary, or either or both of them as the context may require.

**OVERVIEW**

We are a microglia-focused company dedicated to improving the lives of patients, caregivers and families affected by rare and common neurodegenerative diseases by pursuing the development of disease-modifying therapeutics to restore the vigilance of microglia. Microglia are the sentinel immune cells of the brain and play a critical role in maintaining central nervous system (CNS) health and responding to damage caused by disease. Leveraging recent research implicating microglial dysfunction in neurodegenerative diseases, we utilize a precision medicine approach to develop a pipeline of therapeutic candidates, initially for genetically defined patient subpopulations, that we believe will activate and restore microglial function. Our first therapeutic candidates are designed to activate Triggering Receptor Expressed on Myeloid cells 2 (TREM2), a key microglial receptor protein that mediates responses to environmental signals to maintain brain health and whose dysfunction is linked to neurodegeneration. Our lead candidate, VGL101, is a fully human monoclonal antibody (mAb) that is designed to activate TREM2. We expect to begin our first-in-human Phase 1 clinical trial in healthy volunteers in [redacted] and expect to complete it in [redacted]. We are initially developing VGL101 for the treatment of adult-onset leukoencephalopathy with axonal spheroids and pigmented glia (ALSP), a rare, genetically defined, and fatal neurodegenerative disease caused by microglial dysfunction. We intend to expand development of VGL101 for the treatment of additional rare leukoencephalopathies and leukodystrophies where microglia play an essential role, including cerebral adrenoleukodystrophy (cALD). We are also developing a novel small molecule TREM2 agonist suitable for oral delivery to treat common neurodegenerative diseases associated with microglial dysfunction. The initial focus of our novel small molecule TREM2 agonist program is for the treatment of Alzheimer’s disease (AD) in genetically defined patient subpopulations. We expect to select a development candidate by [redacted] and, following Investigational New Drug (IND)-enabling studies, plan to initiate a first-in-human healthy volunteer study. We believe our microglia focus, precision medicine approach, and pipeline, which spans multiple modalities, strongly position us to become a differentiated leader in the neurodegenerative therapeutic space.

Microglia sense signals in the brain, maintain homeostasis, and coordinate signal-specific downstream responses to clear pathogens and cellular debris that can evolve into disease-inducing agents. Homeostatic microglia transition to a neuroprotective disease-associated microglia (DAM) phenotype that maintains the anti-inflammatory CNS environment and removes protein clumps (misfolded protein aggregates that can form plaques) and cellular debris that accumulate in the brains of patients with neurodegenerative diseases and during normal aging. Microglial dysfunction, including the failure to transition to the DAM phenotype, is linked to a range of rare and common neurodegenerative diseases, including leukoencephalopathies, leukodystrophies, AD (particularly genetically defined AD subpopulations), and frontotemporal dementia (FTD). Preclinical data generated by third parties also support the modulation of microglia as a potential therapeutic approach in a variety of CNS diseases in the absence of a clear genetic link to microglial dysfunction such as Parkinson’s disease (PD) and Multiple Sclerosis (MS).

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TREM2 acts as a sensor to detect cellular debris, lipids, and other damage signals. The receptor's normal function is required for microglial transition to the neuroprotective DAM phenotype. TREM2's protective role in neurodegenerative diseases was discovered through genome-wide association studies (GWAS). Multiple third party studies in animal models and in humans have shown that TREM2 deficiency is a likely driver of neurodegeneration, and we believe such studies provide a compelling rationale for therapeutically activating TREM2 signaling to treat neurodegenerative diseases.

We believe that each of the therapeutic candidates in our pipeline has the potential to be developed for multiple neurodegenerative diseases. Our precision medicine approach begins with rare, genetically defined diseases for which microglial dysfunction is believed to be a key driver of disease pathology and then utilizes findings from these efforts to inform expansion into larger and more common neurodegenerative diseases. Our strategy has the potential to mitigate downstream translational risk as we seek to advance our programs through early development and into the clinic. We believe this iterative, sequential approach is a key differentiator, potentially allowing us to generate clinical proof-of-concept (PoC) efficiently and leverage our initial development programs as well as research by others, in pursuing additional neurodegenerative disease opportunities.

We are executing on this approach with our lead pipeline candidate, VGL101, by initially focusing on the treatment of ALS. ALS affects an estimated 10,000 people in the U.S., with about 1,000 to 2,000 new cases annually. ALS has been diagnosed in countries around the world, with major clusters in North America (U.S. and Canada), Central and Northern Europe, and Asia. ALS is caused by loss-of-function mutations in the Colony Stimulating Factor 1 Receptor (CSF1R), a receptor that shares a common downstream signaling pathway with TREM2. The therapeutic rationale for VGL101 is to compensate for CSF1R loss-of-function by activating TREM2. We have generated robust preclinical evidence that suggests TREM2 agonism can rescue CSF1R loss-of-function.

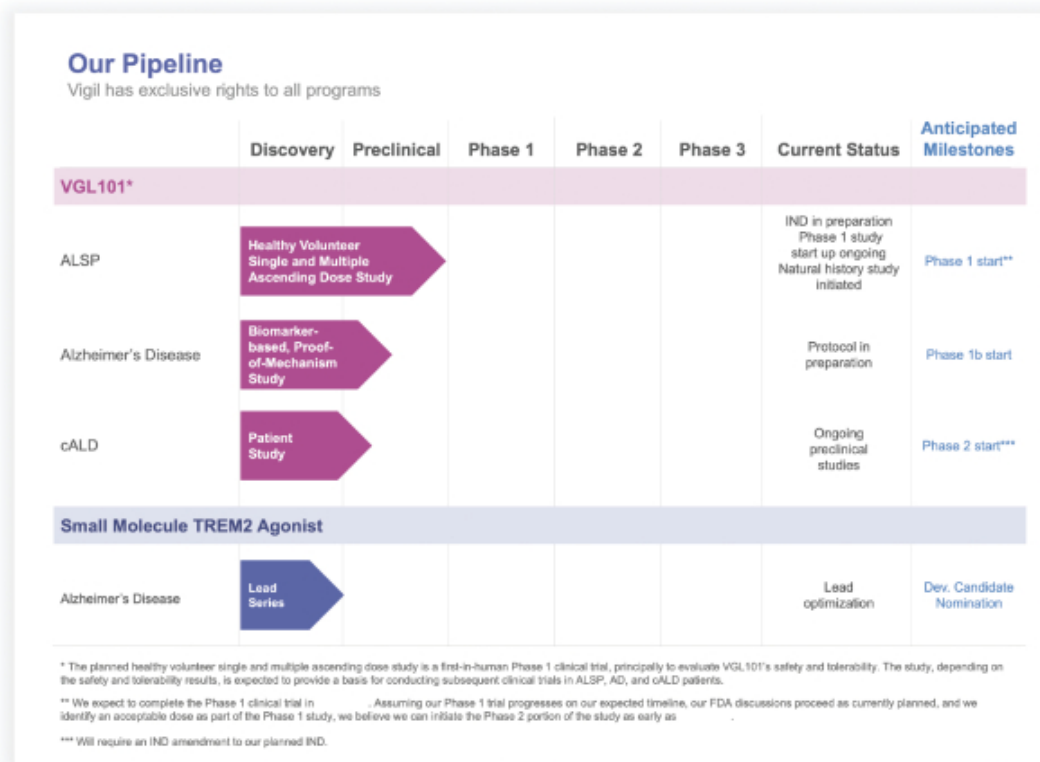
Engagement with our stakeholders, including patients and scientific and provider communities, is central to our approach in rare neurodegenerative diseases. In September 2021, we began a natural history study of ALS patients to better characterize the patient journey, inform our clinical trial design, and facilitate recruitment into our clinical trials. We actively support a patient advocacy organization and have created a strong global network of key opinion leaders (KOLs), centers of excellence, and genetic counseling practices that each treat ALS patients and work with families affected by the disease. We have also established the world's first patient-facing ALS informational website to build disease awareness.

Beyond VGL101, we are developing a novel small molecule TREM2 activator (agonist) for the treatment of AD. GWAS have shown that a specific mutation in a TREM2 variant (*R47H*) has one of the strongest associations with the development of AD, second in magnitude only to that associated with the apolipoprotein E4 (*ApoE4*) genotype. Our strategy in AD is to follow a precision medicine approach that first establishes that VGL101 treatment has the potential to correct microglial dysregulation in AD within certain genetically defined patient subpopulations, including those carrying TREM2 and other variants. If the studies support it, we plan to expand the development of our TREM2 agonist into broader AD patient populations.

AD is the most common cause of dementia affecting an estimated 6.2 million patients in the U.S. alone as well as their families and caregivers. The cost of care for people with AD to our healthcare system is substantial. According to the Alzheimer's Association, the aggregate cost of AD and other dementias is expected to be \$355 billion in 2021 and this number could increase to as much as \$1.1 trillion by 2050.

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The following table highlights our preclinical and clinical programs.



We currently have two programs aimed at developing microglia-targeted TREM2 agonists for the treatment of neurodegenerative diseases:

- VGL101: A fully mAb targeting human TREM2 for the treatment of rare microgliopathies. We are initially developing VGL101 for the treatment of patients with ALSP, a rare, genetically defined, and fatal neurodegenerative disease caused by microglial dysfunction. In multiple preclinical *in vitro* and *in vivo* studies, VGL101 specifically and potently activated TREM2, thereby targeting cells expressing human TREM2 to initiate the cascade of downstream signaling that modulates the neuroprotective and homeostatic functions of microglia. In September 2021, we began a non-interventional natural history study of ALSP patients and plan to begin our first-in-human Phase 1 clinical trial with VGL101 in healthy volunteers in [redacted] and expect to complete the Phase 1 clinical trial in [redacted]. Pending safety results of the Phase 1 trial and discussions with the U.S. Food and Drug Administration (FDA), we plan to conduct a potentially registrational Phase 2/3 trial in ALSP patients. Assuming our Phase 1 trial progresses on our expected timeline, our FDA discussions proceed as currently planned, and we identify an acceptable dose as part of the Phase 1 study, we believe we can initiate the Phase 2 portion of the study as early as [redacted]. We have identified a second rare microgliopathy, cALD, in which we plan to submit an IND amendment to our planned IND to conduct a Phase 2 clinical trial in [redacted] following the completion of the VGL101 Phase 1 clinical trial in healthy volunteers. We also plan to submit a protocol to the FDA under our planned IND to conduct a Phase 1b biomarker-based, proof-of-mechanism clinical study of VGL101, expected to begin in [redacted], in genetically defined [redacted].

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AD patients with or without the relevant TREM2 variants to inform subsequent clinical trials with our small molecule agonist.

- A novel, orally available, small molecule TREM2 agonist for common neurodegenerative diseases that are linked to microglial dysfunction. We are initially developing this program for the treatment of genetically defined subpopulations of AD patients. Compounds in our lead series have been observed to be highly CNS penetrant after oral dosing, and similar to VGL101, are specific, potent activators of TREM2. We expect to have a development candidate from our lead series selected by [REDACTED], and, following IND-enabling studies, initiate a first-in-human healthy volunteer study. In addition, we have ongoing screening efforts that have resulted in the discovery of a second series that is built around a different chemical core structure than the lead series.

Over time, we plan to expand our pipeline, either through internal discovery and development, or through strategic collaborations or alliances with academic organizations, or pharmaceutical or biotechnology companies.

### Our Business Strategy

Our goal is to be a leader in the development and commercialization of microglia-targeted, disease-modifying therapeutics that slow or halt progression of a range of rare and common neurodegenerative diseases. Key elements of our business strategy are to:

- Apply our precision medicine approach to develop microglia-targeted therapies for patients with rare, genetically defined neurodegenerative diseases and subsequently advance into neurodegenerative diseases affecting larger patient populations.
- Advance our lead therapeutic candidate, VGL101, a mAb TREM2 agonist, for the treatment of ALS and other rare leukoencephalopathies and leukodystrophies.
- Develop a novel, orally-available, small molecule TREM2 agonist for the treatment of more common neurodegenerative diseases, beginning with genetically defined subpopulations of AD patients.
- Expand our modality-agnostic product pipeline to other microglial targets beyond TREM2.
- Engage the stakeholder community including patients, advocacy groups, and clinical leaders.

### Our Corporate History and Team

We were co-founded in mid-2020 by Atlas Venture and shortly thereafter entered into a license agreement with Amgen Inc. (Amgen). Through the license agreement, we acquired exclusive worldwide rights to Amgen's TREM2 agonist program, including VGL101 and related molecules, the small molecule TREM2 agonist program, associated intellectual property, and certain manufacturing know-how.

We have built an experienced management team with a proven track record of drug discovery and development in neuroscience, as well as substantial operational and business expertise. Our CEO, Ivana Magovčević-Liebisch, PhD, JD, is an accomplished pharmaceutical and biotechnology executive with more than 20 years of senior management experience in financing, strategic partnerships, mergers and acquisitions, clinical development, regulatory affairs, commercialization, legal, and intellectual property strategies. Richard A. Fisher, PhD, our Chief Scientific Officer, has broad experience in research and development and executive management, having led numerous teams to deliver multiple pipeline candidates across diverse technology platforms and modalities in neurodegenerative diseases and other therapeutic areas. Spyridon (Spyros) Papapetropoulos, MD, PhD, our Chief Medical Officer, is an experienced biopharmaceutical executive, recognized neuroscientist, and neurodegenerative disease clinician. Jennifer Ziolkowski, CPA, our Chief Financial Officer, has more than 25 years of executive management experience in various cross-functional finance and operational leadership roles. Evan A. Thackaberry, PhD, DABT, our Senior Vice President, Early Development, brings over 15 years of drug development experience and cross-functional leadership.

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Our team is supported by a group of investors who have shared our vision and commitment to harness the power of microglia to develop transformative treatments for neurodegenerative diseases. Through September 2021, we have raised \$140.0 million, supported by a leading syndicate of investors, including Atlas Venture, Vida Ventures, Northpond Ventures, Hatteras Venture Partners, Cormorant Asset Management, Deep Track Capital, Surveyor Capital (a Citadel company), Rock Springs Capital, Invus Public Equities, OrbiMed, Lightstone Ventures, Logos Capital, and Pivotal bioVenture Partners.

**SUMMARY OF MATERIAL RISKS ASSOCIATED WITH OUR BUSINESS**

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks include, but are not limited to, the following:

- We have a limited operating history, have incurred significant operating losses since our inception and expect to incur significant losses for the foreseeable future. We may never generate any revenue or become profitable or, if we achieve profitability, we may not be able to sustain it.
- We will require additional financing to achieve our goals, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our development programs, commercialization efforts or other operations.
- Our history of recurring losses and anticipated expenditures raises substantial doubts about our ability to continue as a going concern. Our ability to continue as a going concern requires that we obtain sufficient funding to finance our operations.
- We have not initiated clinical studies, and if we are unable to identify and advance therapeutic candidates through preclinical studies and clinical trials, obtain marketing approval and ultimately commercialize them, or experience significant delays in doing so, our business will be materially harmed.
- We may expend our limited resources to pursue a particular therapeutic candidate or indication, such as our initial focus on developing VGL101, and fail to capitalize on therapeutic candidates or indications that may be more profitable or for which there is a greater likelihood of success. As such, our business is highly dependent on the clinical advancement of our programs and is especially dependent on the success of our lead candidate, VGL101.
- We have concentrated a substantial portion of our research and development efforts on the treatment of neurodegenerative diseases, a field that has seen limited success in drug development. Further, our product candidates are based on new approaches and novel technology, which makes it difficult to predict the time and cost of product candidate development and subsequently obtaining regulatory approval.
- We may encounter substantial delays in the commencement, enrollment or completion of our planned clinical trials, which could prevent us from receiving of necessary regulatory approvals or commercializing any therapeutic candidates we develop on a timely basis, if at all.
- Use of our therapeutic candidates could be associated with side effects, adverse events or other properties or safety risks, which could delay or preclude approval, cause us to suspend or discontinue clinical trials, abandon a therapeutic candidate, limit the commercial profile of an approved label or result in other significant negative consequences that could severely harm our business, prospects, operating results and financial condition.
- Our therapeutic candidates are subject to extensive regulation and compliance, which is costly and time-consuming, and such regulation may cause unanticipated delays or prevent the receipt of the required approvals to commercialize our therapeutic candidates.



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- We may not be successful in our efforts to expand our pipeline of therapeutic candidates.
- We may be required to make significant payments under our license agreement with Amgen Inc. for TREM2, and if we breach our license agreement with Amgen Inc. related to TREM2, we could lose the ability to continue the development and commercialization of TREM2.
- We rely, and expect to continue to rely, on third parties to conduct some or all aspects of our product manufacturing, research and preclinical and clinical testing, and these third parties may not perform satisfactorily.
- If we are unable to obtain and maintain patent protection for our therapeutic programs and other proprietary technologies we develop, or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize products and technology similar or identical to ours, and our ability to successfully commercialize our therapeutic programs and other proprietary technologies we may develop may be adversely affected.
- We have identified a material weakness in our internal control over financial reporting. If we are unable to remediate this material weakness, or if we identify additional material weaknesses in the future or otherwise fail to maintain effective internal control over financial reporting, we may not be able to accurately or timely report our financial condition or results of operations, which may adversely affect our business.

The summary risk factors described above should be read together with the text of the full risk factors in the section entitled “Risk Factors” and the other information set forth in this prospectus, including our consolidated financial statements and the related notes, as well as in other documents that we file with the SEC. The risks summarized above or described in full elsewhere in this prospectus are not the only risks that we face. Additional risks and uncertainties not presently known to us, or that we currently deem to be immaterial may also materially adversely affect our business, financial condition, results of operations, and future, growth prospects.

## CORPORATE HISTORY

We were incorporated under the laws of the State of Delaware on June 22, 2020 under the name “Vigil Neuroscience, Inc.” Our principal corporate office is located at 300 Technology Square, 8<sup>th</sup> Floor, Cambridge, MA 02139, and our telephone number is (857) 254-4445. Our website address is [www.vigilneuro.com](http://www.vigilneuro.com). We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus.

We own various unregistered trademarks in the United States, including our company name, as well as one pending U.S. federal trademark application. All other trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the symbols ® and ™, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

## IMPLICATIONS OF BEING AN EMERGING GROWTH COMPANY AND A SMALLER REPORTING COMPANY

We qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, as amended, or the JOBS Act. As an emerging growth company, we may take advantage of specified

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reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- only two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure;
- reduced disclosure about our executive compensation arrangements;
- no non-binding advisory votes on executive compensation or golden parachute arrangements;
- exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting; and
- an exemption from compliance with the requirements of the Public Company Accounting Oversight Board regarding the communication of critical audit matters in the auditor’s report on financial statements.

We may take advantage of these exemptions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of \$1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than \$1 billion in non-convertible debt during the previous three years; or (iv) the last day of the fiscal year in which we are deemed to be a “large accelerated filer”, which would occur if the aggregate market value of our equity securities held by non-affiliates exceeds \$700 million as of the last business day of our most recently completed second fiscal quarter. We may choose to take advantage of some but not all of these exemptions. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock. Additionally, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this exemption and, therefore, while we are an emerging growth company we will not be subject to new or revised accounting standards at the same time that they become applicable to other public companies that are not emerging growth companies. As a result of these elections, the information that we provide in this prospectus may be different than the information you may receive from other public companies in which you hold equity interests. In addition, it is possible that some investors will find our common stock less attractive as a result of these elections, which may result in a less active trading market for our common stock and higher volatility in our share price.

We are also a “smaller reporting company” as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies until the fiscal year following the determination that (i) our voting and non-voting common stock held by non-affiliates is more than \$250 million measured on the last business day of our second fiscal quarter, or (ii) our annual revenues are more than \$100 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is more than \$700 million measured on the last business day of our second fiscal quarter.

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**THE OFFERING**

Common stock offered	shares.
Underwriters' option to purchase additional shares	We have granted a 30-day option to the underwriters to purchase up to an aggregate of additional shares of common stock from us at the public offering price, less underwriting discounts and commissions on the same terms as set forth in this prospectus.
Common stock to be outstanding immediately after this offering	shares ( shares if the underwriters exercise their option to purchase additional shares in full).
Use of proceeds	We estimate that our net proceeds from the sale of shares of our common stock in this offering will be approximately \$ million, or \$ million if the underwriters exercise in full their option to purchase additional shares, assuming an initial public offering price of \$ per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. The principal purposes of this offering are to create a public market for our common stock and thereby facilitate future access to the public equity markets, increase our visibility in the marketplace and obtain additional capital. We currently intend to use the net proceeds from this offering, together with our existing cash, cash equivalents and marketable securities, for the following: (i) advance the development of VGL101 for the treatment of ALSP and other rare leukoencephalopathies and leukodystrophies, including the initiation of clinical trials, clinical research outsourcing and drug manufacturing; (ii) for the continued research of our novel, small molecule program focusing on treatments for common neurodegenerative diseases that are linked to microglial dysfunction with genetically defined AD as the initial indication; (iii) for the continued research and development of our development programs, including the expansion of our modality agnostic product pipeline to include other microglial targets; and (iv) the remainder for working capital and other general corporate purposes. See "Use of Proceeds" for additional information.
Risk factors	You should carefully read the "Risk Factors" section of this prospectus for a discussion of factors that you should consider before deciding to invest in our common stock.
Proposed Nasdaq Global Market symbol	VIGL

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The number of shares of our common stock to be outstanding after this offering presented above and included elsewhere in this prospectus is based on 58,969,271 shares of our common stock (which includes 789,583 shares of restricted common stock) outstanding as of June 30, 2021, and gives effect to (i) our sale of 25,657,096 shares of Series B convertible preferred stock in August 2021 for gross proceeds of approximately \$90.0 million and (ii) the automatic conversion of all 54,179,688 outstanding shares of our Series A and Series B convertible preferred stock in the aggregate into the equivalent number of shares of our common stock immediately prior to the completion of this offering, and excludes:

- 4,986,551 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2021 under our 2020 Equity Incentive Plan, or 2020 Plan, at a weighted average exercise price of \$0.89 per share;
- 3,115,115 shares of our common stock issuable upon the exercise of stock options granted after June 30, 2021 pursuant to our 2020 Plan at a weighted average exercise price of \$2.17 per share;
- 902,730 shares of common stock reserved for future issuance as of June 30, 2021 under the 2020 Plan, which will cease to be available for issuance at the time that our 2021 Stock Option and Incentive Plan, or the 2021 Stock Plan, becomes effective;
- 3,500,000 shares of additional common stock reserved for future issuance in August 2021 under the 2020 Plan, which will cease to be available for issuance at the time that our 2021 Stock Plan becomes effective;
- shares of common stock reserved for future issuance under our 2021 Employee Stock Purchase Plan, or ESPP, which will become effective in connection with the completion of this offering; and
- shares of our common stock that will become available for future issuance under our 2021 Plan, which will become effective in connection with the completion of this offering.

Unless otherwise indicated, all information in this prospectus reflects or assumes the following:

- the conversion of all 54,179,688 outstanding shares of our Series A and Series B convertible preferred stock in the aggregate into the equivalent number of shares of common stock immediately prior to the closing of this offering;
- no exercise of the outstanding options described above;
- no exercise by the underwriters of their option to purchase up to additional shares of common stock in this offering;
- a one-for- reverse split of our common stock, which will become effective prior to the completion of this offering; and
- the filing of our third amended and restated certificate of incorporation immediately prior to the closing of this offering and the effectiveness of our amended and restated bylaws upon the effectiveness of the registration statement of which this prospectus is a part.

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SUMMARY FINANCIAL DATA

You should read the following summary financial data together with our consolidated financial statements and the related notes included elsewhere in this prospectus and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” section of this prospectus. We have derived the statement of operations data for the period from June 22, 2020 (inception) to December 31, 2020 from our audited financial statements appearing elsewhere in this prospectus. The statement of operations data for the period from June 22, 2020 (inception) to June 30, 2020 and for the six months ended June 30, 2021 and the balance sheet data as of June 30, 2021 have been derived from our unaudited financial statements included elsewhere in this prospectus and have been prepared on the same basis as the audited financial statements. In the opinion of management, the unaudited data reflect all adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of the financial information in those statements. Our historical results are not necessarily indicative of the results that should be expected in any future periods.

	Period from June 22, 2020 (Inception) to December 31, 2020	Period from June 22, 2020 (Inception) to June 30, 2020	Six months ended June 30, 2021
	(in thousands, except share and per share amounts)		
<b>Statement of Operations and Comprehensive Loss Data:</b>			
Operating expenses:			
Related party acquired in-process research and development	\$ 20,923	\$ —	\$ —
Research and development <sup>(1)</sup>	4,514	197	15,401
General and administrative	1,777	184	3,293
Total operating expenses	27,214	381	18,694
Loss from operations	(27,214)	(381)	(18,694)
Other income (expense), net			
Change in fair value of the related party antidilution obligation	(1,307)	—	(836)
Change in fair value of Series A preferred stock tranche obligation	(24)	—	(28)
Interest income	—	—	3
Other expense, net	(1)	—	(3)
Total other income (expense)	(1,332)	—	(864)
Net loss and comprehensive loss	\$ (28,546)	\$ (381)	\$ (19,558)
Net loss attributable to common stockholders basic and diluted <sup>(2)</sup>	\$ (7.63)	\$ (3,810.10)	\$ (4.67)
Weighted average number of shares outstanding used in computation of net loss per common share, basic and diluted <sup>(2)</sup>	3,742,996	100	4,186,083
Pro forma net loss per common share, basic and diluted <sup>(3)</sup>	\$		\$
Pro forma weighted average number of shares outstanding used in computation of net loss per common share, basic and diluted <sup>(3)</sup>			

- (1) Includes related-party amounts of \$811 for the period from June 22, 2020 (inception) to December 31, 2020 and \$2,462 for the six months ended June 30, 2021. See Note 13 to our consolidated financial statements.
- (2) See Note 9 to our consolidated financial statements included elsewhere in this prospectus for details on the calculation of basic and diluted net loss per share attributable to common stockholders.
- (3) Pro forma basic and diluted net loss per share attributable to common stockholders has been prepared to give effect to adjustments to our capital structure arising in connection with the completion of this offering

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and is calculated by dividing the pro forma net loss attributable to common stockholders by the pro forma weighted-average common shares outstanding for the period. Pro forma net loss attributable to common stockholders is the same as the amount of net loss attributable to common stockholders for each period presented. Pro forma weighted-average common shares outstanding is computed by adjusting the weighted-average common shares outstanding to give pro forma effect to the automatic conversion of all shares of our preferred stock outstanding as of December 31, 2020 and June 30, 2021 into shares of common stock as if this offering had occurred on June 22, 2020 (inception). Pro forma basic and diluted net loss per share attributable to common stockholders does not include the effect of the shares of Series B preferred stock we issued and sold in August 2021 and the shares expected to be sold in this offering.

	As of June 30, 2021	
	Actual	Pro forma(1) as adjusted(2) (in thousands)
<b>Balance Sheet Data:</b>		
Cash and cash equivalents	\$ 33,059	\$            \$
Working capital(3)	24,765	
Total assets	34,210	
Convertible preferred stock	72,327	
Total stockholders' equity (deficit)	(47,074)	

- (1) The pro forma balance sheet data gives effect to (i) our sale of 25,657,096 shares of Series B convertible preferred stock in August 2021 for gross proceeds of approximately \$90.0 million, (ii) the automatic conversion of all 54,179,688 outstanding shares of our Series A and Series B convertible preferred stock in the aggregate into the equivalent number of shares of our common stock immediately prior to the completion of this offering, and (iii) the filing and effectiveness of our third amended and restated certificate of incorporation.
- (2) The pro forma as adjusted balance sheet data gives effect to (i) the pro forma adjustments set forth in footnote (1) above and (ii) the issuance and sale of            shares of our common stock in this offering at an assumed initial public offering price of \$            per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each \$1.00 increase (decrease) in the assumed initial public offering price of \$            per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash, cash equivalents and marketable securities, working capital, total assets and total stockholders' equity (deficit) by \$            million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each increase (decrease) of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash, cash equivalents and marketable securities, working capital, total assets and total stockholders' equity (deficit) by \$            million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.
- (3) We define working capital as current assets less current liabilities.

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**RISK FACTORS**

*Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information in this prospectus, including our financial statements and related notes and the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” section, before making an investment decision. These risks may materially and adversely affect our business, financial condition, results of operations and prospects. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that affect us. In that event, the trading price of our common stock could decline, and you could lose part or all of your investment.*

**Risks Related to Our Limited Operating History, Business, and Financial Position**

***We have a limited operating history, have incurred significant operating losses since our inception and expect to incur significant losses for the foreseeable future. We may never generate any revenue or become profitable, and, if we achieve profitability, we may not be able to sustain it.***

Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. We are a preclinical-stage biopharmaceutical company with a limited operating history upon which you can evaluate our business and prospects. All of our development programs, including our lead therapeutic candidate, VGL101, are in preclinical development or in the drug discovery stage. We commenced operations in 2020, and, to date, we have focused primarily on organizing and staffing our company, business planning, raising capital, identifying therapeutic candidates, establishing our intellectual property portfolio and conducting research and preclinical studies. As an organization, we have not yet initiated or completed any clinical trials, obtained regulatory approvals, manufactured a clinical- or commercial-scale product, or arranged for a third party to do so on our behalf, or conducted sales and marketing activities necessary for successful product commercialization. Consequently, any predictions made about our future success or viability are speculative.

We have incurred significant operating losses since our inception. We do not have any products approved for sale and have not generated any product revenue since our inception. If our therapeutic candidates are not successfully developed and approved, we may never generate any, or any significant revenue. Our net loss was \$28.5 million for the year December 31, 2020. As of December 31, 2020, we had an accumulated deficit of \$28.5 million. Substantially all of our losses have resulted from expenses incurred in connection with our research and development programs and from general and administrative costs associated with our operations. All of our therapeutic candidates will require substantial additional development time and resources before we would be able to apply for or receive regulatory approvals and begin generating revenue from product sales. We expect to continue to incur losses for the foreseeable future, and we anticipate these losses will increase substantially as we continue our development of, seek regulatory approval for and potentially commercialize any of our therapeutic candidates.

To become and remain profitable, we must succeed in developing and eventually commercializing products that generate significant revenue. This will require us to be successful in a range of challenging activities, including identifying lead therapeutic candidates, discovering additional therapeutic candidates, conducting preclinical studies prior to submitting an IND, obtaining clearance for an IND, completing additional preclinical studies and clinical trials of our therapeutic candidates, obtaining regulatory approval for therapeutic candidates and manufacturing, marketing and selling any products for which we may obtain regulatory approval. We are only in the preliminary stages of most of these activities. We may never succeed in these activities and, even if we do, may never generate revenues that are significant enough to achieve profitability. In addition, we have not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the biopharmaceutical industry. Because of the numerous risks and uncertainties associated with biopharmaceutical product development, we are unable to

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accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable may have an adverse effect on the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our therapeutic candidates or even continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

Our limited operating history may make it difficult to evaluate our technology and industry and predict our future performance. Though several companies have conducted or are conducting studies involving neurodegenerative diseases for which microglia deficiency is a key driver of disease pathology, the relevance of those studies to the evaluation of therapeutic candidates developed using our precision medicine approach may be difficult to ascertain. Our short history as an operating company and novel therapeutic approach make assessments of our future success or viability subject to significant uncertainty. We will encounter risks and difficulties frequently experienced by early-stage companies in rapidly evolving fields. Failure to address these risks successfully will cause our business to suffer. Similarly, we expect that our financial condition and operating results will fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. As a result, our stockholders should not rely upon the results of any quarterly or annual period as an indicator of future operating performance.

In addition, as an early-stage company, we will encounter unforeseen expenses, difficulties, complications, delays and other known and unknown circumstances. If we advance our therapeutic candidates, we will need to transition from a company with a research focus to a company capable of supporting clinical development and, if successful, commercial activities. We may fail in that transition.

***We will require additional financing to achieve our goals, and failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our development programs, commercialization efforts or other operations.***

The development of biopharmaceutical therapeutic candidates is capital-intensive. We expect our expenses to increase in connection with our ongoing and planned activities, particularly as we conduct preclinical studies of our development programs, initiate clinical trials for our therapeutic candidates and seek regulatory approvals for our current therapeutic candidates and any future therapeutic candidates we may develop. If we obtain regulatory approval for any of our therapeutic candidates, we also expect to incur significant commercialization expenses related to product manufacturing, marketing, sales and distribution. Because the outcome of any preclinical study or clinical trial is highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of our therapeutic candidates.

Furthermore, following the completion of this offering, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. Failing to raise capital when needed or on attractive terms could force us to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

We believe that the net proceeds from this offering, together with our existing cash, cash equivalents and marketable securities, will enable us to fund our operations through . We have based this estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. Our operating plans and other demands on our cash resources may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned, through public or private equity or debt financings or other capital sources, including potentially collaborations, licenses and other similar arrangements. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. Attempting to secure additional financing may divert our management from our day-to-day activities, which may adversely affect our ability to develop our therapeutic candidates.



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Our future capital requirements will depend on many factors, including, but not limited to:

- the type, number, scope, progress, expansions, results, costs and timing of our preclinical studies and any clinical trials of the therapeutic candidates that we are pursuing or may choose to pursue in the future;
- the clinical development plans we establish for our therapeutic candidates;
- the costs and timing of manufacturing of our therapeutic candidates and commercial manufacturing if any therapeutic candidate is approved for sale;
- the costs of establishing and maintaining clinical and commercial supply for the development and manufacture of our therapeutic candidates;
- the costs, timing and outcome of regulatory review of our therapeutic candidates;
- the terms and timing of establishing and maintaining collaborations, licenses and other similar arrangements;
- the costs of obtaining, maintaining and enforcing our patents and other intellectual property rights;
- the costs associated with our efforts to enhance operational systems and hire additional personnel to satisfy our obligations as a public company, including enhanced internal control over financial reporting;
- the costs associated with hiring additional personnel and consultants as our preclinical and clinical activities increase;
- the achievement of milestones or occurrence of other developments that trigger payments under any collaboration agreements, if any;
- the costs and timing of establishing or securing sales and marketing capabilities if any therapeutic candidate is approved;
- regulatory approval and revenue, if any, received from commercial sales of our therapeutic candidates; and
- our ability to achieve sufficient market acceptance, coverage and adequate reimbursement from third-party payors and adequate market share and revenue for any approved products.

Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all.

***Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or our guidance.***

Our quarterly and annual operating results may fluctuate significantly in the future. From time to time, we may enter into license or collaboration agreements or strategic partnerships with other companies to gain access to new technologies, or to out-license our technologies. Any such agreement may include development funding and significant upfront and milestone payments and/or royalties, which may become an important source of our revenue. Under our exclusive license agreement with Amgen, for example, we are required to pay Amgen up to \$80.0 million upon the achievement of specified regulatory milestones for the first mAb TREM2 agonist product, or mAb product, and first small molecule TREM2 agonist product, or small molecule product, upon achievement of specified regulatory milestones as well as aggregate milestone payments of up to \$350.0 million upon achievement of specific commercial milestones across all such mAb products and small molecule products, and tiered royalties of low to mid single-digit percentages on annual net sales of the products covered by the license. These milestone payments may vary significantly from period to period and the variance could cause a significant fluctuation in our operating results from one period to the next.

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In addition, we measure compensation cost for stock-based awards made to employees at the grant date of the award, based on the fair value of the award as determined by our board of directors, and recognize the cost as an expense over the employee's requisite service period. As the variables that we use as a basis for valuing these awards change over time, including, after the closing of this offering, our underlying stock price and stock price volatility, the magnitude of the expense that we must recognize may vary significantly.

Furthermore, our operating results may fluctuate due to a variety of other factors, many of which are outside of our control and may be difficult to predict, including, but not limited to:

- the timing and outcomes of preclinical studies and clinical trials for VGL101 and any therapeutic candidates from our discovery programs, or competing therapeutic candidates;
- the timing and cost of, and level of investment in, research and development activities relating to our programs, which will change from time to time;
- the cost of manufacturing our current therapeutic candidates and any future therapeutic candidates, which may vary depending on the FDA, European Medicines Agency (EMA) or other comparable foreign regulatory authority guidelines and requirements, the quantity of production and the terms of our agreements with manufacturers;
- the timing and cost of meeting regulatory requirements established by the FDA or EMA or comparable foreign regulatory authorities;
- any delays in regulatory review or approval of VGL101 or therapeutic candidates from any of our discovery programs;
- our ability to enroll patients in clinical trials and the timing of enrollment;
- expenditures that we will or may incur to acquire or develop additional therapeutic candidates and technologies or other assets;
- the need to conduct unanticipated clinical trials or trials that are larger or more complex than anticipated;
- competition from existing and potential future products that compete with VGL101 or any of our discovery programs, and changes in the competitive landscape of our industry, including consolidation among our competitors or partners;
- the level of demand for any of our therapeutic candidates, if approved, which may fluctuate significantly and be difficult to predict;
- the risk/benefit profile, cost and reimbursement policies with respect to our therapeutic candidates, if approved, and existing and potential future products that compete with VGL101 or any of our discovery programs;
- our ability to commercialize VGL101 or therapeutic candidates from any of our discovery programs, if approved, inside and outside of the U.S., either independently or working with third parties;
- our ability to establish and maintain collaborations, licensing or other arrangements;
- potential unforeseen business disruptions that increase our costs or expenses;
- future accounting pronouncements or changes in our accounting policies; and
- the changing and volatile global economic and political environment.

The cumulative effect of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance. This variability and unpredictability could also result in our failing to meet the expectations of industry or financial

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analysts or investors for any period. If our operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the forecasts we provide to the market are below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated guidance we may provide.

***Our history of recurring losses and anticipated expenditures raises substantial doubts about our ability to continue as a going concern. Our ability to continue as a going concern requires that we obtain sufficient funding to finance our operations.***

We have incurred operating losses to date and it is possible we may never generate sufficient cash flow from operations to operate as a going concern. We have concluded, and the report from our independent registered public accounting firm for the year ended December 31, 2020 includes an explanatory paragraph stating, that our recurring losses and negative cash flows from operations since inception and required additional funding to finance our operations raise substantial doubt about our ability to continue as a going concern. If we are unable to obtain sufficient funding, we could be forced to delay, reduce or eliminate all of our research and development programs, product portfolio expansion or commercialization efforts, and our financial condition and results of operations will be materially and adversely affected and we may be unable to continue as a going concern. After the completion of this offering, future reports from our independent registered public accounting firm may also contain statements expressing substantial doubt about our ability to continue as a going concern. If we seek additional financing to fund our business activities in the future and there remains substantial doubt about our ability to continue as a going concern, investors or other financing sources may be unwilling to provide additional funding to us on commercially reasonable terms or at all.

***We have identified a material weakness in our internal control over financial reporting. If we are unable to remediate this material weakness, or if we identify additional material weaknesses in the future or otherwise fail to maintain effective internal control over financial reporting, we may not be able to accurately or timely report our financial condition or results of operations, which may adversely affect our business.***

Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Any failure to maintain effective internal control over financial reporting could cause us to fail to accurately or timely report our financial condition or results of operations to meet our reporting obligations.

We identified a material weakness in our internal control over financial reporting. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim consolidated financial statements will not be prevented or detected on a timely basis. The Company did not design and maintain effective controls over the cut-off of certain general and administrative and research and development expenses. This material weakness resulted in immaterial adjustments to general and administrative expenses, research and development expenses and accrued expenses as of and for the year ending December 31, 2020, and as of and for each of the interim periods ending June 30, 2020 and September 30, 2020, all of which were recorded prior to the issuance of the interim and annual consolidated financial statements. Additionally, this material weakness could result in misstatements of the aforementioned account balances or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected. During fiscal year 2021, we are enhancing our internal controls over financial reporting to remediate the material weakness. As the revised and enhanced controls need to be in operation for a sufficient period of time to ensure that the controls are operating as designed, management has concluded that the material weakness cannot be considered remediated as of June 30, 2021.

We cannot assure that the measures we have taken to date, and actions we may take in the future, will be sufficient to remediate the control deficiency that led to this material weakness in our internal control over

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financial reporting or that they will prevent or avoid potential future material weaknesses. In addition, neither our management nor an independent registered public accounting firm has performed an evaluation of our internal control over financial reporting because no such evaluation has been required. Had we or our independent registered public accounting firm performed an evaluation of our internal control over financial reporting, additional material weaknesses may have been identified. If we are unable to successfully remediate our existing or any future material weaknesses in our internal control over financial reporting, or we identify any additional material weaknesses, the accuracy and timing of our financial reporting may be adversely affected, potentially resulting in restatements of our consolidated financial statements; we may be unable to maintain compliance with securities law requirements regarding timely filing of periodic reports and applicable Nasdaq listing requirements; investors may lose confidence in our financial reporting; and our stock price may decline as a result.

***If we are unable to design and maintain effective internal control over financial reporting in the future, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock may decline.***

Ensuring that we have adequate internal control over financial reporting in place so that we can produce accurate financial statements on a timely basis is a costly and time-consuming effort that needs to be re-evaluated frequently. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. In connection with this offering, we intend to begin the process of documenting, reviewing and improving our internal control over financial reporting to comply with the Securities and Exchange Commission's (SEC) rules and regulations, which will require annual management assessment of the effectiveness of our internal control over financial reporting.

Implementing any appropriate changes to our internal control over financial reporting may distract our officers and employees, entail substantial costs to modify our existing processes, and take significant time to complete. These changes may not, however, be effective in establishing and maintaining the adequacy of our internal controls, and any failure to maintain that adequacy, or consequent inability to produce accurate financial statements on a timely basis, could increase our operating costs and harm our business. If we fail to remediate our identified material weakness, or identify additional material weaknesses, in our internal control over financial reporting; if we are unable to comply with the requirements of the SEC's rules and regulations in a timely manner; or if we are unable to assert that our internal control over financial reporting is effective, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could decline, and we could also become subject to investigations by the stock exchange on which our common stock is listed, the SEC or other regulatory authorities, which could require additional financial and management resources.

***Failure or security breaches of, loss or leakage of data from, or other disruptions in, our internal information technology systems, or those of our third-party CROs or other vendors, contractors or consultants, could result in a material disruption of our development programs, compromise sensitive information related to our business or prevent us from accessing critical information, potentially exposing us to liability or otherwise adversely affecting our business.***

We are increasingly dependent upon information technology systems, infrastructure and data to operate our business. In the ordinary course of business, we collect, store and transmit confidential information (including but not limited to intellectual property, proprietary business information and personal information). We also have outsourced elements of our operations to third parties, and, as a result, we manage a number of third-party clinical research organizations (CROs), vendors, and other contractors and consultants who have access to our confidential information.

Despite the implementation of security measures, given their size and complexity and the increasing amounts of confidential information that they maintain, our internal information technology systems and those of

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our third-party CROs, vendors and other contractors and consultants are vulnerable to breakdown or other damage or interruption from service interruptions, system malfunction, natural disasters, terrorism, war and telecommunication and electrical failures, as well as security breaches from inadvertent or intentional actions by our employees, third-party CROs, vendors, contractors, consultants, business partners and/or other third parties, or from cyber-attacks by malicious third parties (including the deployment of harmful malware, ransomware, denial-of-service attacks, social engineering and other means to affect service reliability and threaten the confidentiality, integrity and availability of information), which may compromise our system infrastructure, or that of our third-party CROs, vendors and other contractors and consultants, or lead to data leakage. The risk of a security breach or disruption, particularly through cyber-attacks or cyber intrusion, including by computer hackers, foreign governments, and cyber terrorists, has generally increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. Also, due to the COVID-19 pandemic, most of our employees are working remotely. As a result, we may have increased cyber security and data security risks, due to increased use of home wi-fi networks and virtual private networks, as well as increased disbursement of physical machines. While we implement IT controls to reduce the risk of a cyber security or data security breach, there is no guarantee that these measures will be adequate to safeguard all systems, especially with an increased number of employees working remotely. The techniques used by cyber criminals change frequently, may not be recognized until launched and can originate from a wide variety of sources, including outside groups such as external service providers, organized crime affiliates, terrorist organizations or hostile foreign governments or agencies. Disruptions or security breaches resulting in a loss of, or damage to, our data or applications, or those of our third-party CROs, vendors and other contractors and consultants, or inappropriate disclosure of confidential or proprietary information, could generate liability and reputational damage and the further development and commercialization, if approved, of VGL101 or any future therapeutic candidates could be delayed. The costs related to significant security breaches or disruptions could be material and exceed the limits of the cybersecurity insurance we maintain against such risks. We may have limited recourse for disruptions or breaches of the information technology systems of our third-party CROs, vendors and other contractors and consultants, and we may have to expend significant resources to mitigate the impact of such an event, and to develop and implement protections to prevent future events of this nature from occurring.

Our data protection efforts and our investment in information technology do not preclude significant breakdowns, data leakages, breaches in our systems, or those of our third-party CROs, vendors and other contractors and consultants, or other cyber incidents that could have a material adverse effect upon our reputation, business, operations or financial condition. The loss of clinical trial data for VGL101 or any other therapeutic candidates could result in delays in our marketing approval efforts and significantly increase our costs to recover or reproduce the data.

Furthermore, security breaches or significant disruptions of our internal information technology systems or those of our third-party CROs, vendors and other contractors and consultants, could result in the loss, misappropriation and/or unauthorized access, use, or disclosure of, or the prevention of access to, confidential information (including trade secrets or other intellectual property, proprietary business information and personal information), which could result in financial, legal, business and reputational harm to us. For example, any such event that leads to unauthorized access, use, or disclosure of personal information, including personal information regarding our clinical trial subjects or employees, could harm our reputation directly, compel us to comply with federal and/or state breach notification laws and foreign law equivalents, subject us to mandatory corrective action, and otherwise subject us to liability under laws and regulations that protect the privacy and security of personal information, which could result in significant legal and financial exposure and reputational damages that could potentially have an adverse effect on our business.

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***A pandemic, epidemic or outbreak of an infectious disease, such as COVID-19, may materially and adversely affect our business and could cause a disruption to the development of our therapeutic candidates.***

The ongoing COVID-19 pandemic has broadly affected the global economy, resulted in significant travel and work restrictions in many regions and has put a significant strain on healthcare resources. The ultimate extent of the impact of the COVID-19 pandemic on our business, financial condition and results of operations is highly uncertain and will depend on continued developments and actions taken by government authorities and businesses to contain or prevent the further spread of COVID-19. The continuation of the worldwide COVID-19 pandemic may affect our ability to initiate and complete preclinical studies, delay the initiation of our planned clinical trials, disrupt regulatory activities or have other adverse effects on our business, results of operations, financial condition and prospects. In addition, the COVID-19 pandemic has adversely impacted economies worldwide and may cause substantial disruption in the financial markets, both of which could adversely affect our business, operations and ability to raise funds to support our operations.

To date, we have not experienced a material financial impact or significant business disruptions, including with our vendors, or impairments of any of our assets as a result of the COVID-19 pandemic. We are following, and plan to continue to follow, recommendations from federal, state and local governments regarding workplace policies, practices and procedures. We have taken temporary precautionary measures intended to help minimize the risk of the virus to our employees, including limiting on-site presence to essential employees, providing for social distancing, increased sanitization of our facilities and providing personal protective equipment for our employees. We expect to continue to take actions as may be required or recommended by government authorities or as we determine are in the best interests of our employees and other business partners. We are continuing to monitor the potential impact of the COVID-19 pandemic, but even though many states within the U.S. are easing COVID-19 related restrictions, we cannot be certain what the overall impact of the COVID-19 pandemic will be on our business, financial condition, results of operations and prospects.

### **Risks Related to the Discovery, Development and Regulatory Approval of Our Therapeutic Candidates**

***We are early in our development efforts. We have not initiated clinical studies, and if we are unable to identify and advance therapeutic candidates through preclinical studies and clinical trials, obtain marketing approval and ultimately commercialize them, or experience significant delays in doing so, our business will be materially harmed.***

We are early in our development efforts, and all our development programs, including our lead therapeutic candidate VGL101, are currently in the preclinical or drug discovery stage. We have invested substantially all of our research efforts to date in identifying potential therapeutic candidates and conducting preclinical studies. As an organization, we have never conducted any interventional clinical trials, and we may be unable to do so for our therapeutic candidates. We have not yet submitted an IND for VGL101, our lead candidate, and we will need to obtain FDA clearance of the IND prior to initiating clinical trials. In addition, we have a small molecule program that is in an earlier stage of development, for which we have not yet initiated or completed IND-enabling studies. We may never advance these or any future therapeutic candidates through IND-enabling studies or receive clearance from the FDA to commence clinical trials for our therapeutic candidates. Our ability to generate product revenue, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of our therapeutic candidates, which may never occur. We currently generate no revenue from sales of any product, and we may never be able to develop or commercialize a marketable product.

Commencing clinical trials in the U.S. is subject to acceptance by the FDA of an IND and finalizing the trial design based on discussions with the FDA and other regulatory authorities. For the FDA to accept an IND, we must complete toxicology and other preclinical studies pursuant to Good Laboratory Practices (GLPs), which may not be successful or may take longer than we expect. The FDA may require us to complete additional

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preclinical studies or we may be required to satisfy other FDA requests prior to commencing clinical trials, and such requests may not currently be known or anticipated, which may cause the start of our first clinical trials to be delayed or prevent us from conducting clinical trials. Even after we receive and incorporate guidance from these regulatory authorities, the FDA or other regulatory authorities could disagree that we have satisfied their requirements to commence any clinical trial or change their position on the acceptability of our trial design or the clinical endpoints selected, which may require us to complete additional preclinical studies or clinical trials, impose stricter conditions than we currently expect or may prevent us from conducting clinical trials. There are equivalent processes and risks applicable to clinical trial applications in other countries, including countries in the European Union (EU).

The success of therapeutic candidates we may identify and develop will depend on many factors, including:

- timely and successful completion of preclinical studies, including toxicology studies, biodistribution studies and minimally efficacious dose studies in animals, where applicable, in accordance with FDA's GLPs and any additional regulatory requirements from foreign regulatory authorities;
- successful initiation, enrollment and completion of clinical trials, including under the FDA's Good Clinical Practices (GCPs) and any additional regulatory requirements from foreign regulatory authorities;
- positive results from our future clinical trials that support a finding of safety and effectiveness and an acceptable risk-benefit profile in the intended populations;
- sufficiency of our financial and other resources to complete the necessary preclinical studies and clinical trials;
- receipt of regulatory marketing approvals from applicable regulatory authorities;
- effective INDs or comparable foreign applications that allow commencement of our planned clinical trials or future clinical trials for any therapeutic candidates we may develop;
- establishment of arrangements with third-party manufacturers for clinical supply and, where applicable, commercial manufacturing capabilities;
- establishment, maintenance, defense and enforcement of patent, trademark, trade secret and other intellectual property protection or regulatory exclusivity for any therapeutic candidates we may develop;
- patient recruitment, enrollment and retention;
- commercial launch of any therapeutic candidates we may develop, if approved, whether alone or in collaboration with others;
- acceptance of the benefits and use of our therapeutic candidates we may develop, including method of administration, if and when approved, by patients, the medical community and third-party payors;
- our ability to compete effectively with other therapies and treatment options;
- maintenance of a continued acceptable safety, tolerability and efficacy profile of any therapeutic candidates we may develop following approval; and
- establishment and maintenance of healthcare coverage and adequate reimbursement by payors.

If we do not succeed in one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize any therapeutic candidates we may develop, which would materially harm our business. If we are unable to advance our therapeutic candidates to clinical development, obtain regulatory approval and ultimately commercialize our therapeutic candidates, or experience significant delays in doing so, our business will be materially harmed.

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***We may expend our limited resources to pursue a particular therapeutic candidate or indication, such as our initial focus on developing VGL101, and fail to capitalize on therapeutic candidates or indications that may be more profitable or for which there is a greater likelihood of success. As such, our business is highly dependent on the clinical advancement of our programs and is especially dependent on the success of our lead candidate, VGL101.***

One of our strategies is to identify and pursue clinical development of additional therapeutic candidates. Given our limited human capital and financial resources, we must focus on research programs and therapeutic candidates that we identify for specific indications. As a result, we may forego or delay pursuit of opportunities with other therapeutic candidates or for other indications that later prove to have greater commercial potential. We are highly dependent on the success of the future clinical trials of VGL101, our lead therapeutic candidate, the outcomes of which are uncertain, to further develop our pipeline candidates for common neurodegenerative disease starting from patient segments with known genetic variations associated with microglial dysfunction. Because VGL101 is our first therapeutic candidate, if it encounters safety, efficacy, supply or manufacturing problems, developmental delays, regulatory or commercialization issues or other problems, the value of our platform could be greatly diminished and our development plans could be curtailed and our business would be significantly harmed.

Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and therapeutic candidates for specific indications may not yield any commercially viable therapeutic candidates. If we do not accurately evaluate the commercial potential or target market for a particular therapeutic candidate or misread trends in the biopharmaceutical industry, in particular for neurodegenerative diseases, we may relinquish valuable rights to that therapeutic candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such therapeutic candidate.

At any time and for any reason, we may determine that one or more of our discovery programs or pre-clinical or clinical therapeutic candidates or programs does not have sufficient potential to warrant the allocation of resources toward such program or therapeutic candidate. Accordingly, we may choose not to develop a potential therapeutic candidate or elect to suspend, deprioritize or terminate one or more of our discovery programs or preclinical or clinical therapeutic candidates or programs. Suspending, deprioritizing or terminating a program or therapeutic candidate in which we have invested significant resources, means we will have expended resources on a program that will not provide a full return on our investment and may have missed the opportunity to have allocated those resources to potentially more productive uses, including existing or future programs or therapeutic candidates.

***We have concentrated a substantial portion of our research and development efforts on the treatment of neurodegenerative diseases, a field that has seen limited success in drug development. Further, our therapeutic candidates are based on new approaches and novel technology, which makes it difficult to predict the time and cost of therapeutic candidate development and subsequently obtaining regulatory approval.***

We have focused our research and development efforts on therapeutic approaches for neurodegenerative diseases. Collectively, efforts by biopharmaceutical companies in the field of neurodegenerative diseases have seen limited success in drug development. No effective therapeutic options are available for patients with ALS, and limited options exist for Alzheimer's disease and other neurodegenerative diseases. Our future success is highly dependent on the successful development of our therapeutic candidates for treating neurodegenerative diseases. Developing our therapeutic candidates for treatment of neurodegenerative diseases subjects us to a number of challenges, including demonstrating safety and efficacy and obtaining regulatory approval from the FDA and other regulatory authorities who have only a limited set of precedents to rely on.



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We are pursuing a precision medicine approach to developing a broad range of therapeutics for neurodegenerative diseases. By targeting rare genetically defined neurodegenerative microgliopathies, our strategy is to advance our pipeline by reducing translational risk, efficiently generating clinical PoC and expanding into multiple neurodegenerative indications where microglia-based therapeutics may have meaningful impact on disease progression and patient lives. This strategy may not prove to be successful. We cannot be sure that our approach will yield satisfactory therapeutic products that are safe and effective, scalable, or profitable.

***We may conduct clinical trials that utilize an “open-label” trial, which are subject to various limitations that may exaggerate any therapeutic effect as patients in open-label clinical trials are aware when they are receiving treatment.***

We may conduct clinical trials that utilize an “open-label” trial design. An “open-label” clinical trial is one where both the patient and investigator know whether the patient is receiving the investigational therapeutic candidate or either an existing approved drug or placebo. Most typically, open-label clinical trials test only the investigational therapeutic candidate and sometimes may do so at different dose levels. Open-label clinical trials are subject to various limitations that may exaggerate any therapeutic effect as patients in open-label clinical trials are aware when they are receiving treatment. Open-label clinical trials may be subject to a “patient bias” where patients perceive their symptoms to have improved merely due to their awareness of receiving an experimental treatment. In addition, open-label clinical trials may be subject to an “investigator bias” where those assessing and reviewing the physiological outcomes of the clinical trials are aware of which patients have received treatment and may interpret the information of the treated group more favorably given this knowledge. The results from an open-label trial may not be predictive of future clinical trial results with any of our therapeutic candidates for which we include an open-label clinical trial when studied in a controlled environment with a placebo or active control.

***We may fail to demonstrate safety and efficacy to the satisfaction of applicable regulatory authorities, which could prevent us from commercializing any therapeutic candidates we develop on a timely basis, if at all.***

The risk of failure in developing therapeutic candidates is high. It is impossible to predict when or if any therapeutic candidate would prove effective or safe in humans or will receive regulatory approval. Before obtaining marketing approval from regulatory authorities for the sale of any therapeutic candidate, we must complete preclinical development, submit an IND or foreign equivalent to permit initiation of clinical studies, and then conduct extensive clinical trials to demonstrate the safety and efficacy of therapeutic candidates in humans. VGL101 is currently undergoing IND-enabling studies, with initiation of first-in-human clinical studies in healthy volunteers planned for . We have identified a second rare microgliopathy, cALD, for which we plan to submit an IND amendment to our planned IND to conduct a Phase 2 trial in . We have not previously conducted any clinical trials of any therapeutic candidates, have limited experience as a company in preparing and submitting regulatory filings and have not previously submitted an IND, a new drug application (NDA), or a biologics license application (BLA), or other comparable foreign regulatory submission for any therapeutic candidate.

Before we can commence clinical trials for a therapeutic candidate, we must complete extensive preclinical testing and studies that support our INDs and other regulatory filings. We cannot be certain of the timely identification of a therapeutic candidate or the completion or outcome of our preclinical testing and studies and cannot predict whether the FDA will accept our proposed clinical programs or whether the outcome of our preclinical testing and studies will ultimately support the further development of any therapeutic candidates. Conducting preclinical testing is a lengthy, time-consuming and expensive process. The length of time may vary substantially according to the type, complexity and novelty of the program, and often can be several years or more per program. As a result, we cannot be sure that we will be able to submit INDs for our preclinical programs on the timelines we expect, if at all, and we cannot be sure that submission of INDs will result in the FDA allowing clinical trials to begin.

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Clinical trials are expensive, difficult to design and implement and can take many years to complete, and their outcome is inherently uncertain. A failure of one or more clinical trials can occur at any stage of testing, which may result from a multitude of factors, including, but not limited to, flaws in trial design, dose selection issues, patient enrollment criteria and failure to demonstrate favorable safety or efficacy traits. No therapeutic has been approved for the treatment of ALS and the regulatory pathway for approval of a therapeutic for ALS is uncertain. Given the lack of precedent, we may encounter difficulties in identifying and establishing clinical endpoints that FDA would consider clinically meaningful. Moreover, we have had limited interactions with the FDA and cannot be certain how many clinical trials of VGL101 or any other therapeutic candidates will be required or how such trials should be designed. Even after the FDA has received and commented on the design for our clinical trials, the agency may disagree with our clinical trial design and our interpretation of data from clinical trials, or may change the requirements for approval. Consequently, despite future regulatory interactions and advice, we may be unable to successfully and efficiently execute and complete necessary clinical trials in a way that leads to regulatory submission and approval of any of our therapeutic candidates. Additionally, because our initial target indications are rare diseases, we may face challenges identifying patients and enrolling clinical trials, which may delay or prevent completion of such trials. Clinical trials also may fail to demonstrate that our therapeutic candidates are safe for humans and effective for indicated uses. Successful completion of clinical trials is a prerequisite to submitting an NDA or BLA to the FDA or similar marketing applications to other regulatory authorities for each therapeutic candidate. Even if the clinical trials are successful, changes in marketing approval policies during the development period, changes in or the enactment or promulgation of additional statutes, regulations or guidance or changes in regulatory review for each submitted product application may cause delays in the approval or rejection of an application.

Other events that may prevent successful enrollment, initiation or timely completion of clinical development include:

- we may be unable to generate sufficient preclinical, toxicology or other *in vivo* or *in vitro* data to support the initiation of clinical trials;
- delays in reaching a consensus with regulatory authorities on trial design;
- delays in reaching agreement on acceptable terms with prospective CROs and clinical trial sites;
- delays in opening clinical trial sites or obtaining required institutional review board (IRB) or independent ethics committee approval, or the equivalent review groups for sites outside the U.S., at each clinical trial site;
- imposition of a clinical hold by regulatory authorities, including as a result of a serious adverse event or after an inspection of our clinical trial operations or trial sites;
- challenges identifying, enrolling and retaining participants in clinical trials;
- negative or inconclusive results observed in clinical trials, including failure to demonstrate statistical significance, safety, purity or potency, which could lead us, or cause regulators to require us, to conduct additional clinical trials or abandon product development programs;
- failure by us, any CROs we engage or any other third parties to adhere to clinical trial requirements and clinical trial protocols or to perform in accordance with the FDA's GCPs;
- failure by physicians to adhere to delivery protocols leading to variable results;
- delays in the testing, validation, manufacturing and delivery of any therapeutic candidates we may develop to the clinical sites, including delays by third parties with whom we have contracted to perform certain of those functions;
- failure of our third-party contractors to comply with regulatory requirements or to meet their contractual obligations to us in a timely manner, or at all;
- delays in having patients complete participation in a trial or return for post-treatment follow-up;

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- issues with our clinical trial sites or patients dropping out of a trial;
- we may need to add new or additional clinical trial sites;
- selection of clinical endpoints that require prolonged periods of clinical observation or analysis of the resulting data;
- inability of selected endpoints to capture therapeutic benefit of the therapeutic candidate;
- occurrence of serious adverse events associated with the therapeutic candidate that are viewed to outweigh its potential benefits;
- occurrence of serious adverse events associated with a therapeutic candidate in development by another company, which are viewed to outweigh its potential benefits, and which may negatively impact the perception of our therapeutic candidate due to a similarity in technology or approach;
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols;
- the FDA or other regulatory authorities may require us to submit additional data such as long-term toxicology studies or impose other requirements before permitting us to initiate a clinical trial;
- changes in the legal or regulatory regimes domestically or internationally related to patient rights and privacy; or
- lack of adequate funding to continue the clinical trial.

***We may encounter substantial delays in the commencement, enrollment or completion of our planned clinical trials, which could prevent us from receiving necessary regulatory approvals or commercializing any therapeutic candidates we develop on a timely basis, if at all.***

Failure to locate and enroll a sufficient number of eligible patients to participate in clinical trials as required by the FDA or similar regulatory authorities outside the U.S. may delay or prevent us from initiating or continuing clinical trials for our therapeutic candidates. Because the target patient populations for some of our therapeutic candidates, in particular for rare diseases such as the ones on which we are initially focused, are relatively small, it may be difficult to successfully identify patients for inclusion in clinical trials, especially for the natural history study we began in September 2021. This is especially important as we intend to offer to the volunteers of our natural history study enrollment in our planned interventional clinical trial in patients with ALSP and therefore any potential delays in enrollment could have adverse consequences for our planned clinical development program for VGL101.

In addition, we may experience delays or disruptions in the initiation of or enrollment in our planned clinical trials due to the COVID-19 pandemic and changes in local site or IRB policies availabilities of site staff, reprioritization of hospital resources, restricted access to healthcare professionals and testing sites and other containment measures or concerns among patients about participating in clinical trials during a pandemic. Furthermore, some of our competitors have ongoing clinical trials for therapeutic candidates that treat the same indications we plan to target with our therapeutic candidates, such as Alzheimer's disease, and patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors' therapeutic candidates. Patient enrollment and trial competition may be affected by other factors including:

- clinicians' and patients' perceived risks and benefits of the therapeutic candidate under trial, particularly therapeutic candidates developed using a novel and unproven therapeutic approach, such as VGL101, in relation to available or investigational drugs;
- clinicians' misdiagnosis of patients with existing neurodegenerative diseases in our targeted indications and our inability to recruit these patients successfully;
- design of the trial protocol;

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- efforts to facilitate timely enrollment in clinical trials;
- eligibility and exclusion criteria;
- availability of competing therapies and clinical trials;
- severity of the disease or disorder under investigation;
- proximity and availability of clinical trial sites for prospective patients;
- ability to obtain and maintain patient consent;
- size of the patient population required for analysis of the trial's primary endpoints;
- ability to recruit clinical trial investigators with the appropriate competencies and experience;
- risk that enrolled patients will drop out before completion of the trial;
- patient referral practices of physicians; and
- ability to monitor patients adequately during and after treatment.

Our inability to identify patients appropriate for enrollment in our clinical trials, or to enroll a sufficient number of patients in our clinical trials, specifically our natural history study, would result in significant delays and could require us to abandon one or more clinical trials altogether. Enrollment delays in our clinical trials may result in increased development costs for our therapeutic candidates, which would cause the value of our company to decline and limit our ability to obtain additional financing. If we are unable to include symptomatic patients with the applicable genetic mutations and/or variations, this could limit our ability to seek participation in the FDA's expedited development programs, including breakthrough therapy designation and fast track designation, or otherwise to seek to accelerate clinical development and regulatory timelines.

Even if we are able to enroll a sufficient number of patients for our clinical trials, we may have difficulty retaining patients in our clinical trials. In our planned clinical trials that will include a placebo group, some of patients may perceive that they are not receiving the therapeutic candidate being tested, and they may decide to withdraw from our clinical trials to pursue other alternative therapies rather than continue the trial with the perception that they are receiving placebo. Difficulty enrolling or retaining a sufficient number of patients to conduct our clinical trials, may require us to delay, limit or terminate clinical trials, any of which would harm our business, financial condition, results of operations and prospects.

We could also encounter delays if a clinical trial is suspended, placed on clinical hold or terminated by us, the IRBs of the institutions in which such trials are being conducted, or the FDA or other regulatory authorities or recommended for suspension or termination by the Data Safety Monitoring Board (DSMB) for such trial. A suspension or termination may be imposed due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a product candidate or treatment, failure to establish or achieve clinically meaningful trial endpoints, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. Additionally, if the results of future clinical trials are inconclusive, we may be required to perform additional clinical trials to support approval. Many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our therapeutic candidates.

Our product development costs will increase if we experience delays in clinical testing or marketing approvals. Our preclinical studies or clinical trials may not begin as planned, may need to be restructured or may not be completed on schedule, or at all. Significant preclinical study or clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our therapeutic candidates and may allow our competitors to bring products to market before we do, potentially impairing our ability to successfully commercialize our therapeutic candidates and harming our business and results of operations.

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***Use of our therapeutic candidates could be associated with side effects, adverse events or other properties or safety risks, which could delay or preclude approval, cause us to suspend or discontinue clinical trials, abandon a therapeutic candidate, limit the commercial profile of an approved label or result in other significant negative consequences that could severely harm our business, prospects, operating results and financial condition.***

We have not evaluated any of our therapeutic candidates in human clinical trials and there may be serious adverse events or undesirable side effects related to our therapeutic candidates. To our knowledge, no approved products target TREM2 and no competitive TREM2 agonists are in clinical development for ALSP. Moreover, it is impossible to predict when or if any therapeutic candidates we may develop will prove safe in humans. As is the case with biopharmaceuticals generally, it is likely that there may be side effects and adverse events associated with use of our therapeutic candidates. Results of our clinical trials could reveal a high and unacceptable severity and prevalence of side effects or unexpected characteristics. Undesirable side effects caused by our therapeutic candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or comparable foreign regulatory authorities. The drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims. Any of these occurrences may significantly harm our business, financial condition and prospects.

Further, clinical trials by their nature utilize a sample of the potential patient population. With a limited number of patients and limited duration of exposure, rare and severe side effects of our therapeutic candidates may only be uncovered with a significantly larger number of patients exposed to the therapeutic candidate. Any undesirable side effects or unexpected characteristics associated with our therapeutic candidates in clinical trials may lead us to elect to abandon their development or limit their development to more narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective, which may limit the commercial expectations for the therapeutic candidate, if approved. We may also be required to modify our study plans based on findings after we commence our clinical trials. Many compounds that initially showed promise in early-stage testing have later been found to cause side effects that prevented further development of the compound. In addition, regulatory authorities may draw different conclusions or require additional testing to confirm these determinations.

As we test our therapeutic candidates in larger, longer and more extensive clinical trials, or as the use of these therapeutic candidates becomes more widespread if they receive regulatory approval, illnesses, injuries, discomforts and other adverse events that were observed in earlier trials, as well as conditions that did not occur or went undetected in previous trials, may be reported. Any findings of such side effects later in development or following any approval may harm our business, financial condition and prospects significantly.

Patients treated with our therapeutics, if approved, may experience previously unreported adverse reactions, and the FDA or other regulatory authorities may ask for additional safety data as a condition of, or in connection with, our efforts to obtain approval of our therapeutic candidates.

If safety problems occur or are identified after our therapeutics reach the market, if any, we may make the decision or be required by regulatory authorities to amend the labeling of our therapeutics, recall our therapeutics or even withdraw approval for our therapeutics.

If there are safety concerns or serious adverse events associated with any therapeutic candidates we may develop, we may:

- be delayed in obtaining marketing approval for therapeutic candidates, if at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;

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- be subject to changes in the way the product is administered;
- be required to perform additional clinical trials to support approval or be subject to additional post- marketing testing requirements;
- have regulatory authorities withdraw, or suspend, their approval of the product or impose restrictions on its distribution in the form of a modified risk evaluation and mitigation strategy (REMS);
- be subject to the addition of labeling statements, such as warnings or contraindications;
- be sued; or
- experience damage to our reputation.

***Our therapeutic candidates are subject to extensive regulation and compliance, which is costly and time-consuming, and such regulation may cause unanticipated delays or prevent the receipt of the required approvals to commercialize our therapeutic candidates.***

The clinical research, development, manufacturing, labeling, packaging, storage, record-keeping, advertising, promotion, import, export, marketing, distribution and adverse event reporting, including the submission of safety and other information, of our therapeutic candidates are subject to extensive regulation by the FDA in the U.S. and by comparable foreign regulatory authorities in foreign markets. In the U.S., we are not permitted to market our therapeutic candidates until we receive regulatory approval from the FDA. The process of obtaining regulatory approval is expensive, often takes many years following the commencement of clinical trials and can vary substantially based upon the type, complexity and novelty of the therapeutic candidates involved, as well as the target indications and patient population. Approval policies or regulations may change, and the FDA has substantial discretion in the drug approval process, including the ability to delay, limit or deny approval of a therapeutic candidate for many reasons. Despite the time and expense invested in clinical development of therapeutic candidates, regulatory approval is never guaranteed. Neither we nor any current or future collaborator is permitted to market any of our therapeutic candidates in the U.S. until we receive approval from the FDA.

The FDA or comparable foreign regulatory authorities can delay, limit or deny approval of a therapeutic candidate for many reasons, including:

- we or any of our current or future collaborators may be unable to demonstrate that a therapeutic candidate is safe and effective, and that therapeutic candidate's clinical and other benefits outweigh its safety risks;
- serious and unexpected drug-related side effects may be experienced by participants in our clinical trials or by individuals using drugs similar to our therapeutic candidates;
- such authorities may disagree with the design or implementation of our or our current or future collaborators' clinical trials;
- negative or ambiguous results from our clinical trials or results may not meet the level of statistical significance required by the FDA or comparable foreign regulatory agencies for approval;
- such authorities may not accept clinical data from trials which are conducted at clinical facilities or in countries where the standard of care is potentially different from that of the U.S.;
- such authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- such authorities may not agree that the data collected from clinical trials of our therapeutic candidates are acceptable or sufficient to support the submission of an NDA or BLA or other submission or to obtain regulatory approval in the U.S. or elsewhere, and such authorities may impose requirements for additional preclinical studies or clinical trials;

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- such authorities may disagree regarding the formulation, labeling and/or the specifications of our therapeutic candidates;
- approval may be granted only for indications that are significantly more limited than what we apply for and/or with other significant restrictions on distribution and use;
- such authorities may find deficiencies in the manufacturing processes, approval policies or facilities of our third-party manufacturers with which we or any of our current or future collaborators contract for clinical and commercial supplies;
- regulations of such authorities may significantly change in a manner rendering our or any of our potential future collaborators' clinical data insufficient for approval; or
- such authorities may not accept a submission due to, among other reasons, the content or formatting of the submission.

With respect to foreign markets, approval procedures vary among countries and, in addition to the foregoing risks, may involve additional product testing, administrative review periods and agreements with pricing authorities. In addition, events raising questions about the safety of certain marketed biopharmaceuticals may result in increased cautiousness by the FDA and comparable foreign regulatory authorities in reviewing new drugs based on safety, efficacy or other regulatory considerations and may result in significant delays in obtaining regulatory approvals. Any delay in obtaining, or inability to obtain, applicable regulatory approvals would prevent us or any of our potential future collaborators from commercializing our therapeutic candidates.

***The results of preclinical studies are not necessarily predictive of the results of later preclinical studies and any clinical trials of our therapeutic candidates, and interim, topline and preliminary data from our preclinical studies and planned clinical trials that we announce or publish from time to time may change as more data become available and are subject to audit and verification procedures that could result in material changes in the final data.***

The results from preclinical studies of a therapeutic candidate may not predict the results of later preclinical studies and any clinical trials of the therapeutic candidate. Therapeutic candidates in later stages of clinical trials may fail to show the desired safety and efficacy characteristics despite having progressed through preclinical studies and initial clinical trials. In particular, while we have conducted certain preclinical studies of VGL101 and other potential therapeutic candidates, we do not know whether VGL101 or the other potential therapeutic candidates will perform in future clinical trials as they have performed in prior preclinical studies. The positive results we have observed for our therapeutic candidates in early, GLP and non-GLP preclinical studies, animal and *in vitro* models may not be predictive of our future clinical trials in humans. This may be a result of technical challenges unique to that program or due to biology risk, which is unique to every program. As we progress our programs through clinical development, there may be new technical challenges that arise that cause an entire program to fail. Furthermore, for some indications that we are pursuing there are no animal models that adequately mirror the human disease to predict any level of positive results. Unexpected observations or toxicities observed in these studies, or in IND-enabling studies for any of our other development programs, could delay clinical trials for VGL101 or our other development programs.

From time to time, we may publicly disclose interim, preliminary or topline data from our preclinical studies and planned clinical trials, which are based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular study or trial. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. Topline data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, topline data should be viewed with caution until the final data are available. Additionally, interim, topline or preliminary data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially

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change as patient enrollment continues and more patient data become available. Adverse differences between preliminary, topline or interim data and final data could significantly harm our business prospects.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular therapeutic candidate or product and the value of our company in general. A number of companies in the biopharmaceutical and biotechnology industries have suffered significant setbacks in clinical development even after achieving promising results in earlier studies, and companies that have believed their therapeutic candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain FDA approval. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial will be based on what is typically extensive information, and you or others may not agree with what we determine is the material or otherwise appropriate information to include in our disclosure, and any information we determine not to disclose may ultimately be deemed significant with respect to future decisions, conclusions, views, activities or otherwise regarding a particular product, therapeutic candidate or our business. If the topline data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, our therapeutic candidates may be harmed, which could harm our business, operating results, prospects or financial condition.

### ***We may not be successful in our efforts to expand our pipeline of therapeutic candidates.***

We believe the central role that microglia play in sensing and coordinating the response to tissue damage and disease provides therapeutic opportunities for many neurodegenerative diseases, either through TREM2 activation or potentially other microglia targets. Over time, we plan to expand our pipeline, either through internal discovery and development, or through strategic collaborations or alliances with academic organizations, pharmaceutical or biotechnology companies.

Although our research and development efforts to date have resulted in a pipeline of potential programs and therapeutic candidate, we may not be able to identify other microglia targets and develop therapeutic candidates. We may also pursue opportunities to acquire or in-license additional businesses, technologies or therapeutic candidates, form strategic alliances or create joint ventures with third parties to complement or augment our existing business. However, we may not be able to identify any therapeutic candidates for our pipeline through such acquisition or in-license.

Even if we are successful in continuing to build and expand our pipeline, the potential therapeutic candidates that we identify may not be suitable for clinical development. For example, they may be shown to have harmful side effects or other characteristics that indicate that they are unlikely to be drugs that will be successful in clinical trials or receive marketing approval and achieve market acceptance. If we do not successfully develop and commercialize therapeutic candidates, we will not be able to obtain drug revenues in future periods, which likely would result in significant harm to our financial position and adversely affect our stock price.

### ***Clinical trial and product liability lawsuits against us could divert our resources, could cause us to incur substantial liabilities and could limit commercialization of any therapeutic candidates we may develop.***

We will face an inherent risk of clinical trial and product liability exposure related to the testing of any therapeutic candidates we may develop in clinical trials, and we will face an even greater risk if we commercially sell any products that we may develop. While we currently have no therapeutic candidates in clinical trials or that have been approved for commercial sale, the future use of therapeutic candidates by us in clinical trials, and the sale of any approved products in the future, may expose us to liability claims. These claims might be made by patients that use the product, healthcare providers, pharmaceutical companies or others selling such products. If we cannot successfully defend ourselves against claims that our therapeutic candidates or products caused



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injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any therapeutic candidates we may develop;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants and inability to continue clinical trials;
- initiation of investigations by regulators;
- significant costs to defend any related litigation;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- exhaustion of any available insurance and our capital resources;
- decline in our stock price;
- reduced resources of our management to pursue our business strategy; and
- the inability to commercialize any therapeutic candidates we may develop.

We will need to increase our insurance coverage if we commence clinical trials or if we commence commercialization of any therapeutic candidates. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise. If and when coverage is secured, our insurance policies may also have various exclusions and we may be subject to a product liability claim for which we have no coverage.

Even if our agreements with any future corporate collaborators entitle us to indemnification against losses, such indemnification may not be available or adequate should any claim arise, nor would such indemnity insulate us from potential reputational damage. If a successful clinical trial or product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover such claims and our business operations could be impaired.

### ***We may develop our current or future therapeutic candidates in combination with other therapies, which would expose us to additional risks.***

We may develop our current or potential future therapeutic candidates in combination with one or more currently approved therapies or therapies in development. Even if any of our current or future therapeutic candidates were to receive marketing approval or be commercialized for use in combination with other existing therapies, we would continue to be subject to the risks that the FDA, EMA or other comparable foreign regulatory authorities could revoke approval of the therapy used in combination with any of our therapeutic candidates, or safety, efficacy, manufacturing or supply issues could arise with these existing therapies. In addition, it is possible that in the future, existing therapies with which our therapeutic candidates are then approved for use could themselves fall out of favor or be relegated to later lines of treatment. This could result in the need to identify other combination therapies for our therapeutic candidates or our own products being removed from the market or being less successful commercially.

We may also evaluate our current or future therapeutic candidates in combination with one or more other therapies that have not yet been approved for marketing by the FDA, EMA or comparable foreign regulatory authorities. We will not be able to market and sell any therapeutic candidate in combination with any such unapproved therapies that do not ultimately obtain marketing approval.

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Furthermore, we cannot be certain that we will be able to obtain a steady supply of such therapies for use in developing combinations with our therapeutic candidates on commercially reasonable terms or at all. Any failure to obtain such therapies for use in clinical development and the expense of purchasing therapies in the market may delay our development timelines, increase our costs and jeopardize our ability to develop our therapeutic candidates as commercially viable therapies. If the FDA, EMA or other comparable foreign regulatory authorities do not approve or withdraw their approval of these other therapies, or if safety, efficacy, commercial adoption, manufacturing or supply issues arise with the therapies we choose to evaluate in combination with any of our current or future therapeutic candidates, we may be unable to obtain approval of or successfully market any one or all of the current or future therapeutic candidates we develop. Additionally, if the third-party providers of therapies or therapies in development used in combination with our current or future therapeutic candidates are unable to produce sufficient quantities for clinical trials or for commercialization of our current or future therapeutic candidates, or if the cost of combination therapies are prohibitive, our development and commercialization efforts would be impaired, which would have an adverse effect on our business, financial condition, results of operations and growth prospects.

***Where appropriate, we plan to secure approval from the FDA, EMA or comparable foreign regulatory authorities through the use of accelerated approval pathways. If we are unable to obtain such approval, we may be required to conduct additional preclinical studies or clinical trials beyond those that we contemplate, which could increase the expense of obtaining, and delay the receipt of, necessary marketing approvals. Even if we receive accelerated approval from the FDA, EMA or comparable regulatory authorities, if our confirmatory trials do not verify clinical benefit, or if we do not comply with rigorous post-marketing requirements, the FDA, EMA or such other regulatory authorities may seek to withdraw the accelerated approval.***

Where possible, we plan to pursue accelerated development strategies in areas of high unmet need. We may seek an accelerated approval pathway for our one or more of our therapeutic candidates from the FDA, EMA or comparable foreign regulatory authorities. Under the accelerated approval provisions in the Federal Food, Drug, and Cosmetic Act, and the FDA's implementing regulations, the FDA may grant accelerated approval to a therapeutic candidate designed to treat a serious or life-threatening condition that provides meaningful therapeutic benefit over available therapies upon a determination that the therapeutic candidate has an effect on a surrogate endpoint or intermediate clinical endpoint that is reasonably likely to predict clinical benefit. The FDA considers a clinical benefit to be a positive therapeutic effect that is clinically meaningful in the context of a given disease, such as irreversible morbidity or mortality. For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit, but is not itself a measure of clinical benefit. An intermediate clinical endpoint is a clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit. The accelerated approval pathway may be used in cases in which the advantage of a new drug over available therapy may not be a direct therapeutic advantage, but is a clinically important improvement from a patient and public health perspective. If granted, accelerated approval is usually contingent on the sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the drug's clinical benefit. If such post-approval studies fail to confirm the drug's clinical benefit, the FDA may withdraw its approval of the drug.

Prior to seeking accelerated approval, we will seek feedback from the FDA, EMA or comparable foreign regulatory authorities and will otherwise evaluate our ability to seek and receive such accelerated approval. There can be no assurance that after our evaluation of the feedback and other factors we will decide to pursue or submit an NDA or BLA for accelerated approval or any other form of expedited development, review or approval. Similarly, there can be no assurance that after subsequent feedback from the FDA, EMA or comparable foreign regulatory authorities, we will continue to pursue or apply for accelerated approval or any other form of expedited development, review or approval, even if we initially decide to do so. Furthermore, if we decide to submit an application for accelerated approval, there can be no assurance that such application will be accepted

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or that any approval will be granted on a timely basis, or at all. The FDA, EMA or other comparable foreign regulatory authorities could also require us to conduct further studies prior to considering our application or granting approval of any type, including, for example, if other products are approved via the accelerated pathway and subsequently converted by FDA to full approval. A failure to obtain accelerated approval or any other form of expedited development, review or approval for our therapeutic candidate would result in a longer time period to commercialization of such therapeutic candidate, could increase the cost of development of such therapeutic candidate and could harm our competitive position in the marketplace. Moreover, even if we are able to obtain accelerated approval for any of our therapeutic candidates, there is no guarantee that post-approval studies will be able to confirm the clinical benefit, which could cause FDA to withdraw our approval.

***We may seek fast track designation, breakthrough therapy designation and/or orphan drug designation from the FDA or similar designations from other regulatory authorities for one or more of our therapeutic candidates. Even if one or more of our therapeutic candidates receive any of these designations, we may be unable to obtain or maintain the benefits associated with such designation.***

The FDA has established various designations to facilitate more rapid and efficient development and approval of certain types of drugs. Such designations include fast track designation, breakthrough therapy designation, and orphan drug designation. Fast track designation is designed to facilitate the development and expedite the review of therapies for serious conditions that fill an unmet medical need. Programs with fast track designation may benefit from early and frequent communications with the FDA, potential priority review and the ability to submit a rolling application for regulatory review. Fast track designation applies to both the therapeutic candidate and the specific indication for which it is being studied. If any of our therapeutic candidates receive fast track designation but do not continue to meet the criteria for fast track designation, or if our clinical trials are delayed, suspended or terminated, or put on clinical hold due to unexpected adverse events or issues with clinical supply or due to other issues, we will not receive the benefits associated with the fast track program. Fast track designation alone does not guarantee qualification for the FDA's priority review procedures.

A breakthrough therapy, on the other hand, is defined as a drug or biologic that is intended, alone or in combination with one or more other drugs or biologics, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the drug or biologic may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints. For therapeutic candidates that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Designation as a breakthrough therapy is within the discretion of the FDA, and drugs designated as breakthrough therapies by the FDA may also be eligible for other expedited approval programs, including accelerated approval. Even if one or more of our therapeutic candidates qualify as breakthrough therapies pursuant to FDA standards, the FDA may later decide that the product no longer meets the conditions for qualification. Thus, even though we may seek breakthrough therapy designation for one or more of our current or future therapeutic candidates, there can be no assurance that we will receive breakthrough therapy designation.

Regulatory authorities in some jurisdictions, including the U.S. and the EU, may also designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a therapeutic candidate as an orphan drug if it is a drug intended to treat a rare condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the U.S., or a patient population greater than 200,000 in the U.S. where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the U.S. In the EU, the EMA's Committee for Orphan Medicinal Products (COMP) evaluates orphan drug designation to promote the development of products that are intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition affecting not more than five in 10,000 persons in the EU. In the U.S., orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers, and it may entitle the therapeutic to exclusivity in the U.S. and the EU. Regulatory authorities may not grant our requests for

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orphan designation, or may require submission of additional data before making such determination. For example, we submitted a request for orphan drug designation of VGL101 in May 2021, and FDA has requested clinical or additional *in vivo* animal data to facilitate the agency's review of this request. Even if we obtain orphan drug designation for a therapeutic candidate, we may not be able to obtain or maintain orphan drug exclusivity for that therapeutic candidate.

If any of our programs or therapeutic candidates receive fast track, breakthrough therapy or orphan drug designation by the FDA or similar designations by other regulatory authorities, there is no assurance that we will receive any benefits from such programs or that we will continue to meet the criteria to maintain such designation. Even if we obtain such designations, we may not experience a faster development process, review or approval compared to conventional FDA procedures. A fast track, breakthrough therapy, or orphan drug designation does not ensure that a therapeutic candidate will receive marketing approval or that approval will be granted within any particular timeframe. In addition, the FDA may withdraw any such designation if it believes that the designation is no longer supported by data from our clinical development program.

### Risks Related to Our Reliance on Third Parties

***We may be required to make significant payments under our license agreement with Amgen Inc. for certain TREM2 agonists, and, if we breach our license agreement with Amgen Inc. related to these TREM2 agonists, we could lose the ability to continue the development and commercialization of TREM2 agonists.***

In July 2020, we acquired an exclusive, royalty-bearing license to certain intellectual property rights owned or controlled by Amgen, to commercially develop, manufacture, use, distribute and sell therapeutic products containing compounds that bind to TREM2 (the Amgen Agreement). Under the Amgen Agreement, in consideration for the license, we made an upfront payment of \$500,000 and also issued 6,928,566 shares of our Series A preferred stock to Amgen at the time of the initial closing with a subsequent 1,963,093 shares of our Series A preferred stock issued at the time of the milestone closing. As additional consideration for the license, we are required to pay Amgen up to \$80.0 million in the aggregate upon the achievement of specified regulatory milestones for the first monoclonal antibody TREM2 agonist (mAb) product and the first small molecule TREM2 agonist product and aggregate milestone payments of up to \$350.0 million upon the achievement of specific commercial milestones across all such mAb products and small molecule products. No regulatory or commercial milestones have been achieved to date under the license agreement. We are also required to pay tiered royalties of low to mid single-digit percentages on annual net sales of the products covered by the license. If milestone or other non-royalty obligations become due, we may not have sufficient funds available to meet our obligations, which will materially adversely affect our business operations and financial condition. For more information on the terms of the license agreement with Amgen, see "Business—Exclusive License Agreement with Amgen Inc."

We are dependent on patents, know-how and proprietary technology in-licensed from Amgen. Our commercial success depends upon our ability to develop, manufacture, market and sell our therapeutic candidate or any future therapeutic candidates and use our and our licensor's proprietary technologies without infringing the proprietary rights of third parties. Amgen may have the right to terminate the license agreement in full in the event we materially breach or default in the performance of any of the obligations under the license agreement. A termination of the license agreement with Amgen could result in the loss of significant rights and could harm our ability to develop and commercialize our therapeutic candidates.

Disputes may also arise between us and Amgen, as well as any future potential licensors, regarding intellectual property subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;

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- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our therapeutic candidate and what activities satisfy those diligence obligations; and
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected therapeutic candidates.

In addition, the Amgen Agreement under which we currently license intellectual property is complex, and certain provisions may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property, or increase what we believe to be our financial or other obligations under the Amgen Agreement, either of which could have a material adverse effect on our business, financial condition, results of operations, and prospects. For example, under the Amgen Agreement, Amgen shall have the right to terminate the agreement if we are deemed to have directly or indirectly conducted, enabled or participated in any distracting program (as defined in the Amgen Agreement), and do not elect to add the program to the agreement. There could be disagreements on whether a certain program would be considered as a distracting program. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangement on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected therapeutic candidates, which could have a material adverse effect on our business, financial conditions, results of operations, and prospects.

We are generally also subject to all of the same risks with respect to protection of intellectual property that we license, as we are for intellectual property that we own, which are described below. If we or our licensors fail to adequately protect this intellectual property, our ability to commercialize products could suffer.

***We rely, and expect to continue to rely, on third parties to conduct some or all aspects of our product manufacturing, research and preclinical and clinical testing, and these third parties may not perform satisfactorily.***

We do not expect to independently conduct all aspects of our product manufacturing, research and preclinical and clinical testing. We currently rely, and expect to continue to rely, on third parties with respect to many of these items, including contract manufacturing organizations (CMOs) for the manufacturing of any therapeutic candidates we test in preclinical or clinical development, as well as CROs for the conduct of our preclinical testing and research and CROs for the conduct of our planned clinical trials. For instance, VGL101 is a monoclonal antibody and is produced from a recombinant cell line only by permitted CMOs as set forth in the Amgen Agreement, the replacement of which would need to be approved by Amgen. We have established non-exclusive relationships with these CMOs for the manufacturing of VGL101 drug substance and drug product, and other third parties for testing, fill finish, and packaging and labeling. Any of these third parties may terminate their engagements with us at any time. A need to enter into alternative arrangements could delay our product development activities. Delays in CMO production of VGL101 drug substance or drug product would delay our ability to conduct and complete clinical trials.

Our reliance on these third parties for research and development activities will reduce our control over these activities but will not relieve us of our responsibility to ensure compliance with all required regulations and study protocols. For example, for therapeutic candidates that we develop and commercialize on our own, we will remain responsible for ensuring that each of our IND-enabling studies and clinical trials are conducted in

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accordance with the study plan and protocols. Moreover, the FDA requires us to comply with GLPs for preclinical studies intended to support INDs and applications for marketing authorization, and with GCPs for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. Regulatory authorities enforce these GCP requirements through periodic inspections of trial sponsors, clinical investigators and trial sites. We also are required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov within specified timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions. If we or any of our CROs or other third parties, including trial sites, fail to comply with applicable GLPs or GCPs, the preclinical and clinical data generated in our preclinical studies and clinical trials may be deemed unreliable and the FDA, EMA or comparable foreign regulatory authorities may require us to suspend, place on clinical hold or terminate these trials or require us to perform additional preclinical studies or clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials complies with GCP regulations, or that applicable preclinical studies comply with GLPs. In addition, our clinical trials must be conducted with product produced under conditions that comply with the FDA's current Good Manufacturing Practices (cGMP). Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

Although we intend to design the clinical trials for any therapeutic candidates we may develop, CROs will conduct some or all of the clinical trials. As a result, many important aspects of our development programs, including their conduct and timing, will be outside of our direct control. Our reliance on third parties to conduct future preclinical studies and clinical trials will also result in less direct control over the management of data developed through preclinical studies and clinical trials than would be the case if we were relying entirely upon our own staff. Communicating with outside parties can also be challenging, potentially leading to mistakes as well as difficulties in coordinating activities. Outside parties may:

- have staffing difficulties;
- fail to comply with contractual obligations;
- experience regulatory compliance issues;
- undergo changes in priorities or become financially distressed; or
- form relationships with other entities, some of which may be our competitors.

These factors may materially adversely affect the willingness or ability of third parties to conduct our preclinical studies and clinical trials and may subject us to unexpected cost increases that are beyond our control. We expect to have to negotiate budgets and contracts with CROs and trial sites, which may result in delays to our development timelines and increased costs. In addition, any third parties conducting our clinical trials will not be our employees, and except for remedies available to us under our agreements with such third parties, we cannot control whether or not they devote sufficient time and resources to our clinical programs. If these CROs, and any other third parties we engage do not perform preclinical studies and future clinical trials in a satisfactory manner, if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, or if they breach their obligations to us or fail to comply with regulatory requirements, the development, regulatory approval and commercialization of any therapeutic candidates we may develop may be delayed, we may not be able to obtain regulatory approval and commercialize our therapeutic candidates or our development programs may be materially and irreversibly harmed. If we are unable to rely on preclinical and clinical data collected by our CROs and other third parties, we could be required to repeat, extend the duration of or increase the size of any preclinical studies or clinical trials we conduct and this could significantly delay commercialization and require greater expenditures.

These third parties may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other product development activities, which could affect

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their performance on our behalf. If these third parties do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to complete development of, obtain regulatory approval of or successfully commercialize our therapeutic candidates. As a result, our financial results and the commercial prospects for our therapeutic candidates would be harmed, our costs could increase and our ability to generate revenue could be delayed.

Our failure or any failure by these third parties to comply with these regulations or to recruit a sufficient number of patients may require us to repeat clinical trials, which would delay the regulatory approval process. Moreover, our business may be implicated if any of these third parties violates federal or state fraud and abuse or false claims laws and regulations or healthcare privacy and security laws.

For any violations of laws and regulations during the conduct of our preclinical studies and clinical trials, we could be subject to warning letters or enforcement action that may include civil penalties up to and including criminal prosecution.

If any of our relationships with these third-party CROs or others terminate, we may not be able to enter into arrangements with alternative CROs or other third parties or to do so on commercially reasonable terms. Switching or adding additional CROs involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new CRO begins work. As a result, delays may occur, which can materially impact our ability to meet our desired clinical development timelines. Though we carefully manage our relationships with our CROs, there can be no assurance that we will not encounter similar challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects. If third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our studies in accordance with regulatory requirements or our stated study plans and protocols, we will not be able to complete, or may be delayed in completing, the preclinical studies and clinical trials required to support future IND submissions and approval of any therapeutic candidates we may develop.

***We are dependent on third-party vendors to provide certain licenses, products and services and our business and operations, including clinical trials, could be disrupted by problems with or challenges faced by our significant third-party vendors.***

We engage a number of third-party suppliers and service providers to supply critical goods and services, such as contract research services, contract manufacturing services and information technology services. Disruptions to the business, financial stability or operations of these suppliers and service providers, including due to strikes, labor disputes or other disruptions to the workforce, for instance, if, as a result of the COVID-19 pandemic, employees are not able to come to work, or to their willingness and ability to produce or deliver such products or provide such services in a manner that satisfies the requirements put forth by the authorities, or in a manner that satisfies our own requirements, could affect our ability to develop and market our future therapeutic candidates on a timely basis. If these suppliers and service providers were unable or unwilling to continue to provide their products or services in the manner expected, or at all, we could encounter difficulty finding alternative suppliers. Even if we are able to secure appropriate alternative suppliers in a timely manner, costs for such products or services could increase significantly. Additionally, two vaccines for COVID-19 were granted Emergency Use Authorization by the FDA in late 2020 and early 2021, and one vaccine was approved in August 2021, and more may be authorized or approved in the future. The resultant demand for vaccines and potential for manufacturing facilities and materials to be commandeered under the Defense Production Act of 1950, or equivalent foreign legislation, may make it more difficult to obtain materials or manufacturing slots for the products needed for our clinical trials, which could lead to delays in these trials. Any of these events could adversely affect our results of operations and our business.

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***We depend, and may continue to depend on single-source suppliers for some of the components and materials used in the therapeutic candidates we are developing.***

We depend, and may continue to depend, on single-source suppliers for some of the components and materials used in the therapeutic candidates we are developing. For example, we currently rely on a master services agreement with FUJIFILM (as defined in “Management’s Discussion and Analysis of Financial Condition and Results of Operations”) pursuant to which FUJIFILM is the sole provider to us of certain research, development, testing and manufacturing services for certain of our product candidates, including VGL101 (the FUJIFILM Agreement). In the event the FUJIFILM Agreement is terminated, our ability to meet the desired clinical development timelines may be materially impacted and our business will be implicated. We cannot ensure that these suppliers or service providers will remain in business, have sufficient capacity or supply to meet our needs or that they will not be purchased by one of our competitors or another company that is not interested in continuing to work with us. Our use of single-source suppliers of raw materials, components, key processes and finished goods could expose us to several risks, including disruptions in supply, price increases or late deliveries. There are, in general, relatively few alternative sources of supply for substitute components. These vendors may be unable or unwilling to meet our future demands for our clinical trials or commercial sale. Establishing additional or replacement suppliers for these components, materials and processes could take a substantial amount of time and it may be difficult to establish replacement suppliers who meet regulatory requirements. Any disruption in supply from any single- source supplier or service provider could lead to supply delays or interruptions which would damage our business, financial condition, results of operations and prospects.

If we have to switch to a replacement supplier, the manufacture and delivery of any therapeutic candidates we may develop could be interrupted for an extended period, which could adversely affect our business. Establishing additional or replacement suppliers, if required, may not be accomplished quickly. If we are able to find a replacement supplier, the replacement supplier would need to be qualified and may require additional regulatory authority approval, which could result in further delay. While we seek to maintain adequate inventory of the single source components and materials used in our therapeutics, any interruption or delay in the supply of components or materials, or our inability to obtain components or materials from alternate sources at acceptable prices in a timely manner, could impair our ability to meet the demand for our investigational medicines.

***We may enter into collaborations, licenses and other similar arrangements with third parties for the research, development and commercialization of certain of the therapeutic candidates we may develop. If any such arrangements are not successful, we may not be able to capitalize on the market potential of those therapeutic candidates.***

We may seek third-party collaborators for the research, development and commercialization of certain of the therapeutic candidates we may develop. If we enter into any such arrangements with any third parties, we will likely have limited control over the amount and timing of resources that our partners dedicate to the development or commercialization of any therapeutic candidates we may seek to develop with them. Our ability to generate revenues from these arrangements will depend on the ability of such collaborators to successfully perform the functions assigned to them in these arrangements. We cannot predict the success of any arrangement that we enter into.

Collaborations involving our research programs or any therapeutic candidates we may develop pose numerous risks to us, including the following:

- collaborators may not pursue development and commercialization of any therapeutic candidates we may develop or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborator’s strategic focus or available funding or external factors such as an acquisition that diverts resources or creates competing priorities;
- collaborators may delay programs, preclinical studies or clinical trials, provide insufficient funding for programs, preclinical studies or clinical trials, stop a preclinical study or clinical trial or abandon a



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therapeutic candidate, repeat or conduct new clinical trials or require a new formulation of a therapeutic candidate for clinical testing;

- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with any therapeutic candidates we may develop if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- collaborators may be acquired by a third party having competitive products or different priorities, causing the emphasis on our product development or commercialization program under such collaboration to be delayed, diminished or terminated;
- collaborators would have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not perform their obligations as expected;
- collaborators with marketing and distribution rights to one or more products may not commit sufficient resources to the marketing and distribution of such product or products;
- collaborators may not properly obtain, maintain, enforce or defend our intellectual property or proprietary rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our proprietary information or expose us to potential litigation;
- if a collaborator of ours is involved in a business combination, the collaborator might deemphasize or terminate the development or commercialization of any therapeutic candidate licensed to it by us;
- our collaborators' business or operations could be disrupted due to the COVID-19 pandemic or other reasons outside of our control, which could have an adverse impact on their development and commercialization efforts or the prospects of our collaboration;
- disputes may arise between the collaborators and us that result in the delay or termination of the research, development, or commercialization of any therapeutic candidates we may develop or that result in costly litigation or arbitration that diverts management attention and resources;
- we may lose certain valuable rights under certain circumstances, including if we undergo a change of control;
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable therapeutic candidates we may develop; and
- collaboration agreements may not lead to development or commercialization of therapeutic candidates in the most efficient manner or at all.

If our collaborations do not result in the successful development and commercialization of therapeutic candidates, or if one of our collaborators terminates its agreement with us, we may not receive any future research funding or milestone or royalty payments pursuant to the collaboration arrangement. If we do not receive the funding we expect under these agreements, our development of therapeutic candidates could be delayed, and we may need additional resources to develop therapeutic candidates. In addition, if one of our collaborators terminates its agreement with us, we may find it more difficult to find a suitable replacement collaborator or attract new collaborators, and our development programs may be delayed or the perception of us in the business and financial communities could be adversely affected.

Furthermore, all of the risks relating to product development, regulatory approval and commercialization described in this prospectus apply to the activities of our collaborators.

These relationships, or those like them, may require us to incur non-recurring and other charges, increase our near- and long-term expenditures, issue securities that dilute our existing stockholders, or disrupt our

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management and business. In addition, we could face significant competition in seeking appropriate collaborators, and the negotiation process is time-consuming and complex. Our ability to reach a definitive collaboration agreement will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration, and the proposed collaborator's evaluation of several factors. If we license rights to any therapeutic candidates we or our collaborators may develop, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture.

### Risks Related to Our Intellectual Property

***If we are unable to obtain and maintain patent protection for our therapeutic programs and other proprietary technologies we develop, or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize products and technology similar or identical to ours, and our ability to successfully commercialize our therapeutic programs and other proprietary technologies we may develop may be adversely affected.***

Our success depends in large part on our ability to obtain and maintain patent protection in the U.S. and other countries with respect to our therapeutic programs and other proprietary technologies we may develop. In order to protect our proprietary position, we have filed and intend to file additional patent applications in the U.S. and abroad relating to our therapeutic programs and other proprietary technologies we may develop; however, there can be no assurance that any such patent applications will issue as granted patents or that a granted patent will provide sufficient coverage for our therapeutic programs. If we are unable to obtain or maintain patent protection with respect to our therapeutic programs and other proprietary technologies we may develop, our business, financial condition, results of operations and prospects could be materially harmed.

The patent prosecution process is expensive, time-consuming and complex, and we may not be able to file, prosecute, maintain, enforce, or license all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output in time to obtain patent protection. Although we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, corporate collaborators, outside scientific collaborators, CROs, contract manufacturers, consultants, advisors and other third parties, any of these parties may breach the agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection. In addition, our ability to obtain and maintain valid and enforceable patents depends on whether the differences between our inventions and the prior art allow our inventions to be patentable over the prior art. Furthermore, publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the U.S. and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot be certain that we or our licensors were the first to make the inventions claimed in any of our owned or licensed patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has been the subject of much litigation in recent years. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our patent applications may not result in patents being issued which protect our therapeutic programs and other proprietary technologies we may develop or which effectively prevent others from commercializing competitive technologies and products. In particular, our ability to stop third parties from making, using, selling, offering to sell, or importing products that infringe our intellectual property will depend in part on our success in obtaining and enforcing patent claims that cover our technology, inventions and improvements. We do not currently have issued patents in the U.S. or other major markets that cover our technology or therapeutic candidates. With respect to both licensed and company-owned intellectual property, we cannot be sure that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications filed by us in the

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future. Moreover, even issued patents do not provide us with the right to practice our technology in relation to the commercialization of our therapeutics. The area of patent and other intellectual property rights in biotechnology is an evolving one with many risks and uncertainties, and third parties may have blocking patents that could be used to prevent us from commercializing our patented therapeutic candidates and practicing our proprietary technology. Patents that may issue in the future that we own or in-license may be challenged, invalidated, or circumvented, which could limit our ability to stop competitors from marketing related products or limit the length of the term of patent protection that we may have for our therapeutic candidates. Furthermore, our competitors may independently develop similar technologies.

Additionally, issuance of a patent is not conclusive as to its inventorship, scope, validity, or enforceability and our patents may be challenged in the courts or patent offices in the U.S. and abroad. We may be subject to a third-party pre-issuance submission of prior art to the U.S. Patent and Trademark Office (USPTO) or in other jurisdictions, or become involved in opposition, derivation, revocation, reexamination, post-grant and *inter partes* review, or other similar proceedings challenging our patent rights. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate or render unenforceable, our patent rights, allow third parties to commercialize our therapeutic programs and other proprietary technologies we may develop and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Such proceedings also may result in substantial cost and require significant time from our scientists and management, even if the eventual outcome is favorable to us.

In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, regardless of the outcome, it could dissuade companies from collaborating with us to license, develop or commercialize current or future therapeutic candidates.

***Our rights to develop and commercialize our therapeutic candidates are subject in part to the terms and conditions of a license granted to us by a third party. If we fail to comply with our obligations under our intellectual property license agreement, license agreements that we enter into in the future, or otherwise experience disruptions to our business relationships with our current or any future licensors, we could lose intellectual property rights that are important to our business.***

We are and expect to continue to be reliant upon third-party licensors for certain patent and other intellectual property rights that are important or necessary to the development of our therapeutic programs, eventual therapeutic candidates, and proprietary technologies. For example, we rely on the Amgen Agreement for a license to technologies necessary for our monoclonal antibody TREM2 agonist program, including VGL101 and related molecules, intellectual property and manufacturing know-how, and our small molecule agonist program, including a portfolio of approximately 1,000 compounds. The Amgen Agreement imposes, and we expect that any future license agreement will impose, specified diligence, milestone payment, royalty, commercialization, development and other obligations on us and require us to meet development timelines, or to exercise diligent or commercially reasonable efforts to develop and commercialize licensed products, in order to maintain the licenses. For more information on the terms of the license agreement with Amgen, see “Business—Exclusive License Agreement with Amgen Inc.”

Furthermore, our licensors have, or may in the future have, the right to terminate a license if we materially breach the agreement and fail to cure such breach within a specified period or in the event we undergo certain bankruptcy events. In spite of our best efforts, our current or any future licensors might conclude that we have materially breached our license agreements and might therefore terminate the license agreements. If our license agreements are terminated, we may lose our rights to develop and commercialize therapeutic candidates and technology, lose patent protection, experience significant delays in the development and commercialization of our therapeutic candidates and technology, and incur liability for damages. If these in-licenses are terminated, or if the underlying intellectual property fails to provide the intended exclusivity, our competitors or other third parties could have the freedom to seek regulatory approval of, and to market, products and technologies identical

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or competitive to ours and we may be required to cease our development and commercialization of certain of our therapeutic candidates and technology. In addition, we may seek to obtain additional licenses from our licensors and, in connection with obtaining such licenses, we may agree to amend our existing licenses in a manner that may be more favorable to the licensors, including by agreeing to terms that could enable third parties, including our competitors, to receive licenses to a portion of the intellectual property that is subject to our existing licenses and to compete with any therapeutic candidates we may develop and our technology. Any of the foregoing could have a material adverse effect on our competitive position, business, financial condition, results of operations and prospects.

Disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted and obligations imposed under the license agreement and other interpretation-related issues;
- our or our licensors' ability to obtain, maintain and defend intellectual property and to enforce intellectual property rights against third parties;
- the extent to which our technology, therapeutic candidates and processes infringe, misappropriate or otherwise violate the intellectual property of the licensor that is not subject to the license agreement;
- the sublicensing of patent and other intellectual property rights under our license agreements;
- our diligence, development, regulatory, commercialization, financial or other obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our current or future licensors and us and our partners; and
- the priority of invention of patented technology.

In addition, any current or future license agreements to which we are a party, including our license agreement with Amgen, are likely to be complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our diligence, development, regulatory, commercialization, financial or other obligations under the relevant agreement. In addition, if disputes over intellectual property that we have licensed or any other dispute related to our license agreements prevent or impair our ability to maintain our current license agreements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected therapeutic candidates and technology. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

License agreements we may enter into in the future may be non-exclusive. Accordingly, third parties may also obtain non-exclusive licenses from such licensors with respect to the intellectual property licensed to us under such license agreements. Accordingly, these license agreements may not provide us with exclusive rights to use such licensed patent and other intellectual property rights, or may not provide us with exclusive rights to use such patent and other intellectual property rights in all relevant fields of use and in all territories in which we may wish to develop or commercialize our technology and any therapeutic candidates we may develop in the future.

Moreover, if some of our in-licensed patent and other intellectual property rights in the future become subject to third party interests such as co-ownership and we are unable to obtain an exclusive license to such third-party co-owners' interest, in such patent and other intellectual property rights, the third-party co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology. Additionally, we or our licensors may need the cooperation of any such co-owners of our licensed patent and other intellectual property rights in order to enforce them against third parties, and such cooperation may not be provided to us or our licensors.

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Additionally, there could be instances where we may not have complete control over the preparation, filing, prosecution, maintenance, enforcement and defense of patents and patent applications that we license from third parties. In such instances, it is possible that our licensors' filing, prosecution and maintenance of the licensed patents and patent applications, enforcement of patents against infringers or defense of such patents against challenges of validity or claims of enforceability may be less vigorous than if we had conducted them ourselves, and accordingly, we cannot be certain that these patents and patent applications will be prepared, filed, prosecuted, maintained, enforced and defended in a manner consistent with the best interests of our business. If our licensors fail to file, prosecute, maintain, enforce and defend such patents and patent applications, or lose rights to those patents or patent applications, the rights we may license may be reduced or eliminated, our right to develop and commercialize any of our technology and any therapeutic candidates we may develop that are the subject of such licensed rights could be adversely affected and we may not be able to prevent competitors or other third parties from making, using and selling competing products.

### ***We may not be able to protect our intellectual property rights throughout the world.***

Filing, prosecuting, maintaining, enforcing and defending patents and other intellectual property rights on our technology and any therapeutic candidates we may develop in all jurisdictions throughout the world would be prohibitively expensive, and accordingly, our intellectual property rights in some jurisdictions outside the U.S. could be less extensive than those in the U.S. In some cases, we or our licensors may not be able to obtain patent or other intellectual property protection for certain technology and therapeutic candidates outside the U.S. In addition, the laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as federal and state laws in the U.S. Consequently, we and our licensors may not be able to obtain issued patents or other intellectual property rights covering any therapeutic candidates we may develop and our technology in all jurisdictions outside the U.S. and, as a result, may not be able to prevent third parties from practicing our and our licensors' inventions in all countries outside the U.S., or from selling or importing products made using our inventions in and into the U.S. or other jurisdictions. For example, third parties may use our technologies in jurisdictions where we and our licensors have not pursued and obtained patent or other intellectual property protection to develop their own products and, further, may export otherwise infringing, misappropriating or violating products to territories where we have patent or other intellectual property protection, but enforcement is not as strong as that in the U.S.

Additionally, many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain jurisdictions, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biotechnology and pharmaceutical products, which could make it difficult for us to stop the infringement, misappropriation or other violation of our patent and other intellectual property rights or marketing of competing products in violation of our intellectual property rights generally. Proceedings to enforce our or our licensors' patent and other intellectual property rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patent and other intellectual property rights at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We or our licensors may not prevail in any lawsuits that we or our licensors initiate and, if we or our licensors prevail, the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Many jurisdictions also have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties, and, many jurisdictions limit the enforceability of patents against government agencies or government contractors. In these jurisdictions, the patent owner may have limited remedies, which could materially diminish the value of such patents. If we or any of our licensors is forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business, financial condition, results of operations and prospects may be adversely affected.

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***Issued patents covering therapeutic candidates we may develop could be found invalid or unenforceable if challenged in court or before administrative bodies in the U.S. or abroad.***

Our owned and licensed patent rights may be subject to priority, validity, inventorship and enforceability disputes. If we or our licensors are unsuccessful in any of these proceedings, such patent rights may be narrowed, invalidated or held unenforceable. The foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

For example, if we or one of our licensors initiate legal proceedings against a third party to enforce a patent covering any of our therapeutic candidates or our technology, the defendant could counterclaim that the patent is invalid or unenforceable. In patent litigation in the U.S., defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, lack of written description or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld information material to patentability from the USPTO, or made a misleading statement, during prosecution. Third parties also may raise similar claims before administrative bodies in the U.S. or abroad, even outside the context of litigation. Such mechanisms include re-examination, interference proceedings, derivation proceedings, post grant review, *inter partes* review and equivalent proceedings such as opposition, invalidation and revocation proceedings in foreign jurisdictions. Such proceedings could result in the revocation or cancellation of or amendment to our patents in such a way that they no longer cover one or more of our therapeutic candidates or our technology or no longer prevent third parties from competing with any therapeutic candidates we may develop or our technology. The outcome following legal assertions of invalidity and unenforceability is unpredictable. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a distraction to management and other employees. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which the patent examiner and we or our licensing partners were unaware during prosecution. If a third party were to prevail on a legal assertion of invalidity or unenforceability, we could lose at least part, and perhaps all, of the patent protection on one or more of our therapeutic candidates or technology. Such a loss of patent protection could have a material adverse effect on our business, financial condition, results of operations and prospects.

***Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.***

Periodic maintenance fees, renewal fees, annuity fees, and various other government fees on patents and applications will be due to be paid to the USPTO and various government patent agencies outside of the U.S. over the lifetime of our owned or licensed patents and applications. The USPTO and various non-U.S. government agencies require compliance with several procedural, documentary, fee payment and other similar provisions during the patent application process. In some cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. There are situations, however, in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in a partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the market with similar or identical products or technology, which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

***Changes in patent law in the U.S. or worldwide could diminish the value of patents in general, thereby impairing our ability to protect any therapeutic candidates we may develop and our technology.***

Changes in either the patent laws or interpretation of patent laws in the U.S. and worldwide, including patent reform legislation such as the Leahy-Smith America Invents Act (the Leahy-Smith Act), could increase the uncertainties and costs surrounding the prosecution of any owned or in-licensed patent applications and the maintenance, enforcement or defense of any current in-licensed issued patents and issued patents we may own or

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in-license in the future. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These changes include provisions that affect the way patent applications are prosecuted, redefine prior art, provide more efficient and cost-effective avenues for competitors to challenge the validity of patents, and enable third-party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent at USPTO-administered post-grant proceedings, including post-grant review, *inter partes* review, and derivation proceedings. Assuming that other requirements for patentability are met, prior to March 2013, in the U.S., the first to invent the claimed invention was entitled to the patent, while outside the U.S., the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith Act, the U.S. transitioned to a first-to-file system in which, assuming that the other statutory requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. As such, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of patents to issue based on our in-licensed patent applications and issued patents we may own or in-license in the future, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

The Leahy-Smith Act also includes a number of significant changes that may affect patent litigation. These include additional procedures to attack the validity of a patent by USPTO-administered post-grant proceedings, including post-grant review, *inter partes* review, and derivation proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in U.S. federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim unpatentable even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to review patentability of our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. Therefore, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our owned or in-licensed patent applications and the enforcement or defense of our owned or in-licensed issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

In addition, the patent positions of companies in the development and commercialization of biologics and pharmaceuticals are particularly uncertain. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. As one example, in the case *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, the U.S. Supreme Court held that certain claims to DNA molecules are not patentable simply because they have been isolated from surrounding material. Moreover, in 2012, the USPTO issued a guidance memo to patent examiners indicating that process claims directed to a law of nature, a natural phenomenon or a naturally occurring relation or correlation that do not include additional elements or steps that integrate the natural principle into the claimed invention such that the natural principle is practically applied and the claim amounts to significantly more than the natural principle itself should be rejected as directed to patent-ineligible subject matter. This combination of events has created uncertainty with respect to the validity and enforceability of patents once obtained. Depending on future actions by the U.S. Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on our patent rights and our ability to protect, defend and enforce our patent rights in the future.

### ***If we do not obtain patent term extension and data exclusivity for any therapeutic candidates we may develop, our business may be harmed.***

Depending upon the timing, duration and specifics of any FDA marketing approval of any therapeutic candidates we may develop and our technology, one or more U.S. patents that may issue in the future based on a patent application that we license or may own may be eligible for limited patent term extension under Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent extension term of up to five years as compensation for patent term lost during the FDA regulatory review process. A patent term extension cannot

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extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent may be extended and only those claims covering the approved product, a method for using it or a method for manufacturing it may be extended. The application for the extension must be submitted prior to the expiration of the patent for which extension is sought and within 60 days of FDA approval. A patent that covers multiple products for which approval is sought can only be extended in connection with one of the approvals. However, we may not be granted an extension because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. In addition, to the extent we wish to pursue patent term extension based on a patent that we in-license from a third party, we would need the cooperation of that third party. If we are unable to obtain patent term extension or the term of any such extension is less than we request, our competitors may obtain approval of competing products following our patent expiration, and our revenue could be reduced. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

### ***We may be subject to claims challenging the inventorship or ownership of our patent and other intellectual property rights.***

We or our licensors may be subject to claims that former employees, collaborators or other third parties have an interest in our owned or in-licensed patent rights, trade secrets or other intellectual property as an inventor or co-inventor. For example, we or our licensors may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing our therapeutic candidates or technology. Litigation may be necessary to defend against these and other claims challenging inventorship or our or our licensors' ownership of our owned or in-licensed patent rights, trade secrets or other intellectual property. If we or our licensors fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of or right to use intellectual property that is important to any therapeutic candidates we may develop or our technology. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

### ***We may not be successful in obtaining necessary rights to a therapeutic candidate we may develop through acquisitions and in-licenses.***

We currently own or exclusively license intellectual property rights covering certain aspects of our therapeutic programs. Other pharmaceutical companies and academic institutions may also have filed or are planning to file patent applications potentially relevant to our business. In order to avoid infringing these third-party patents, we may find it necessary or prudent to obtain licenses to such patents from such third-party intellectual property holders. However, we may be unable to secure such licenses or otherwise acquire or in-license any compositions, methods of use, processes or other intellectual property rights from third parties that we identify as necessary for our therapeutic programs and other proprietary technologies we may develop. The licensing or acquisition of third-party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third party intellectual property rights on terms that would allow us to make an appropriate return on our investment or at all. If we are unable to successfully obtain rights to required third party intellectual property rights or maintain the existing intellectual property rights we have, we may have to abandon development of the relevant program or therapeutic candidate, which could have a material adverse effect on our business, financial condition, results of operations and prospects.



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***We may be subject to claims that our employees, consultants or advisors have wrongfully used or disclosed alleged trade secrets of their current or former employers or claims asserting ownership of what we regard as our own intellectual property.***

Some of our employees, consultants and advisors are currently or were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these individuals have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to our management.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Such claims could have a material adverse effect on our business, financial condition, results of operations and prospects.

***Third-party claims of intellectual property infringement, misappropriation or other violations against us or our collaborators may prevent or delay the development and commercialization of our therapeutic programs and other proprietary technologies we may develop.***

Our commercial success depends in part on our ability to avoid infringing, misappropriating and otherwise violating the patents and other intellectual property rights of third parties. There is a substantial amount of complex litigation involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries, as well as administrative proceedings for challenging patents, including interference, derivation and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. As discussed above, recently, due to changes in U.S. law referred to as patent reform, new procedures including *inter partes* review and post-grant review have also been implemented. As stated above, this reform adds uncertainty to the possibility of challenge to our patents in the future.

Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist in the fields in which we are commercializing or plan to commercialize our therapeutic programs and in which we are developing other proprietary technologies. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our therapeutic programs and commercializing activities may give rise to claims of infringement of the patent rights of others. We cannot assure you that our therapeutic programs and other proprietary technologies we may develop will not infringe existing or future patents owned by third parties. We may not be aware of patents that have already been issued and that a third party, for example, a competitor in the fields in which we are developing our therapeutic programs, might assert as infringed by us. It is also possible that patents owned by third parties of which we are aware or patents that may issue in the future from patent applications owned by third parties of which we are aware, but which we do not believe we infringe or that we believe we have valid defenses to any claims of patent infringement, could be found to be infringed by us, such as in connection with one or more of our therapeutic candidates. In addition, because patent applications can take many years to issue, and the scope of any patent claims that may ultimately issue are difficult to predict, there may be currently pending patent applications that may later result in issued patents that we may infringe and that, as a result, could harm our business.

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In the event that any third party claims that we infringe their patents or that we are otherwise employing their proprietary technology without authorization and initiates litigation against us, even if we believe such claims are without merit, a court of competent jurisdiction could hold that such patents are valid, enforceable and infringed by us. In this case, the holders of such patents may be able to block our ability to commercialize the infringing products or technologies unless we obtain a license under the applicable patents, or until such patents expire or are finally determined to be held invalid or unenforceable. Such a license may not be available on commercially reasonable terms or at all. Even if we are able to obtain a license, the license would likely obligate us to pay license fees or royalties or both, and the rights granted to us might be nonexclusive, which could result in our competitors gaining access to the same intellectual property. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, we may be unable to commercialize the infringing products or technologies or such commercialization efforts may be significantly delayed, which could in turn significantly harm our business.

Defense of infringement claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of management and other employee resources from our business, and may impact our reputation. In the event of a successful claim of infringement against us, we may be enjoined from further developing or commercializing the infringing products or technologies. In addition, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties and/or redesign our infringing products or technologies, which may be impossible or require substantial time and monetary expenditure. In that event, we would be unable to further develop and commercialize our therapeutic candidate or technologies, which could harm our business significantly. Further, we cannot predict whether any required license would be available at all or whether it would be available on commercially reasonable terms. We could be prevented from commercializing a product, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms.

We may in the future pursue invalidity proceedings with respect to third-party patents. The outcome following legal assertions of invalidity is unpredictable. Even if resolved in our favor, these legal proceedings may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. If we do not prevail in the patent proceedings the third parties may assert a claim of patent infringement directed at our therapeutic candidates.

***We may become involved in lawsuits to protect or enforce our patents and other intellectual property rights, which could be expensive, time-consuming and unsuccessful.***

Third parties, such as a competitor, may infringe our patent rights. In an infringement proceeding, a court may decide that a patent owned by us is invalid or unenforceable or may refuse to stop the other party from using the invention at issue on the grounds that the patent does not cover the technology in question. In addition, our patent rights may become involved in inventorship, priority or validity disputes. To counter or defend against such claims can be expensive and time-consuming. An adverse result in any litigation proceeding could put our patent rights at risk of being invalidated or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses and could distract our personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a

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substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

***If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.***

Our registered or unregistered trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks.

We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors or other third parties may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. Our efforts to enforce or protect our proprietary rights related to trademarks, trade names, domain name or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect our business, financial condition, results of operations and prospects.

***We may not be successful in obtaining or maintaining necessary rights to product components and processes for our development pipeline through acquisitions and in-licenses.***

The growth of our business may depend in part on our ability to acquire, in-license or use third-party proprietary rights. For example, our therapeutic candidates may require specific formulations to work effectively and efficiently, we may develop therapeutic candidates containing our compounds and pre-existing pharmaceutical compounds, or we may be required by the FDA or comparable foreign regulatory authorities to provide a companion diagnostic test or tests with our therapeutic candidates, any of which could require us to obtain rights to use intellectual property held by third parties. We may be unable to acquire or in-license any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify as necessary or important to our business operations. In addition, we may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. Were that to happen, we may need to cease use of the compositions or methods covered by those third-party intellectual property rights, and may need to seek to develop alternative approaches that do not infringe on those intellectual property rights, which may entail additional costs and development delays, even if we were able to develop such alternatives, which may not be feasible.

***We, our collaborators and our service providers may be subject to a variety of privacy and data security laws and contractual obligations, which could increase compliance costs and our failure to comply with them could subject us to potentially significant fines or penalties and otherwise harm our business.***

We maintain a large quantity of sensitive information, including confidential business and patient health information in connection with our preclinical studies, and are subject to laws and regulations governing the privacy and security of such information. The global data protection landscape is rapidly evolving, and we may be affected by or subject to new, amended or existing laws and regulations in the future, including as our operations continue to expand or if we operate in foreign jurisdictions. These laws and regulations may be subject to differing interpretations, which adds to the complexity of processing personal data. Guidance on implementation and compliance practices are often updated or otherwise revised.

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In the U.S., there are numerous federal and state privacy and data security laws and regulations governing the collection, use, disclosure and protection of personal information, including health information privacy laws, security breach notification laws and consumer protection laws. Each of these laws is subject to varying interpretations and constantly evolving. By way of example, the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes privacy and security requirements and breach reporting obligations with respect to individually identifiable health information upon “covered entities” (health plans, health care clearinghouses and certain health care providers), and their respective business associates (individuals or entities that create, received, maintain or transmit protected health information in connection with providing a service for or on behalf of a covered entity). Entities that are found to be in violation of HIPAA may be subject to significant civil, criminal and administrative fines and penalties and/or additional reporting and oversight obligations. Even when HIPAA does not apply, failing to take appropriate steps to keep consumers’ personal information secure may constitute unfair acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act (the FTCA), 15 U.S.C § 45(a). The FTC expects a company’s data security measures to be reasonable and appropriate in light of the sensitivity and volume of consumer information it holds, the size and complexity of its business and the cost of available tools to improve security and reduce vulnerabilities. Individually identifiable health information is considered sensitive data that merits stronger safeguards.

In addition, certain state laws govern the privacy and security of health information in certain circumstances, some of which are more stringent than HIPAA and many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts. For example, California enacted the California Consumer Privacy Act of 2018 (CCPA), which took effect on January 1, 2020 and became enforceable by the California Attorney General on July 1, 2020, and broadly defines personal information. The CCPA creates new individual privacy rights for consumers (as that term is broadly defined) and places increased privacy and security obligations on entities handling personal data of consumers or households. The CCPA requires covered companies to provide certain disclosures to California consumers about its data collection, use and sharing practices, provide such consumers with ways to opt-out of certain sales or transfers of personal information, provides for civil penalties for violations, and allows for a new private right of action for data breaches that has resulted in an increase in data breach litigation. Many aspects of the CCPA, including the expansion of the consumer rights granted therein under the California Privacy Rights Act (CPRA), and its interpretation remain unclear. As such, its full impact on our business and operations remains uncertain. Additionally, comprehensive privacy laws akin to the CCPA have recently been passed in Virginia and Colorado, and it is quite possible that other U.S. states will follow suit. New privacy and data security laws have been proposed in more than half of the states in the U.S. and in the U.S. Congress. The existence of comprehensive privacy laws in different states in the country will make our compliance obligations more complex and costly.

As we conduct preclinical studies with subjects from outside of the U.S., we may be subject to additional, more stringent privacy laws in other jurisdictions. Most notably, in the EU, in May 2018, a new privacy regime, the General Data Protection Regulation, the GDPR, took effect in the European Economic Area, the EEA. The GDPR governs the collection, use, disclosure, transfer or other processing of personal data of European persons. Among other things, the GDPR imposes new requirements regarding the security of personal data and notification of data processing obligations to the competent national data processing authorities, changes the lawful bases on which personal data can be processed, expands the definition of personal data and requires changes to informed consent practices, as well as more detailed notices for clinical trial subjects and investigators. In addition, the GDPR increases the scrutiny of transfers of personal data from clinical trial sites located in the EEA to the U.S. and other jurisdictions that the European Commission does not recognize as having “adequate” data protection laws, and imposes substantial fines for breaches and violations (up to the greater of €20 million or 4% of our consolidated annual worldwide gross revenue).

Moreover, the United Kingdom leaving the EU could also lead to further legislative and regulatory changes. In addition, further to the U.K.’s exit from the EU on January 31, 2020, the GDPR ceased to apply in the U.K. at the end of the transition period on December 31, 2020. However, as of January 1, 2021, the U.K.’s European

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Union (Withdrawal) Act 2018 incorporated the U.K. GDPR into U.K. law. The U.K. GDPR and the U.K. Data Protection Act 2018 set out the U.K.'s data protection regime. Non-compliance with the U.K. GDPR may result in monetary penalties of up to £17.5 million or 4% of worldwide revenue, whichever is higher.

As these privacy, data protection and data security laws continue to evolve, we may be required to make changes to our business, including by taking on more onerous obligations in our contracts, limiting our storage, transfer and processing of data and, in some cases, limiting our activities in certain locations. Changes in these laws may also increase our potential exposure through significantly higher potential penalties for non-compliance. In addition, due to the uncertainty and potentially conflicting interpretations of these laws, it is possible that such laws and regulations may be interpreted and applied in a manner that is inconsistent from one jurisdiction to another and may conflict with other rules or our practices. Any failure or perceived failure by us to comply with applicable laws or satisfactorily protect personal information could result in governmental enforcement actions, litigation, or negative publicity, any of which could inhibit our ability to grow our business.

Organizations are also increasingly subject to a wide variety of sophisticated attacks on their networks, systems and endpoints, including the theft and subsequent misuse of employee credentials, denial-of-service attacks, ransomware attacks, business email compromises, malware, viruses, and social engineering (including phishing). The techniques used to obtain unauthorized access or to sabotage systems, networks, or physical facilities in which data is stored or through which data is transmitted change frequently and generally are not identified until they are launched against a target. We and our third party service providers may be unable to anticipate these techniques or to implement adequate preventative measures.

Compromise of our data security or of third parties with whom we do business, failure to prevent or mitigate the loss of personal or business information and delays in detecting or providing prompt notice of any such compromise or loss could disrupt our operations, harm our reputation, subject us to litigation, government action or other additional costs and liabilities that could adversely affect our business, financial condition and operating results. Any reputational damage resulting from breach of our security measures could create distrust of our company. In addition, our insurance coverage may not be adequate to cover costs, expenses and losses associated with such events, and in any case, such insurance may not cover all of the types of costs, expenses and losses we could incur to investigate, respond to and remediate a security breach. As a result, we may be required to expend significant additional resources to protect against the threat of these disruptions and security breaches or to alleviate problems caused by such disruptions or breaches, including costs to deploy additional personnel and protection technologies, train employees, and engage third-party experts and consultants, which could materially and adversely affect our business, financial condition and results of operations.

### ***Intellectual property rights do not necessarily address all potential threats.***

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make products that are similar to our therapeutic candidate or utilize similar technology but that are not covered by the claims of the patents that we license or may own;
- we might not have been the first to make the inventions covered by our current or future patent applications;
- we might not have been the first to file patent applications covering our inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that our current or future patent applications will not lead to issued patents;
- any patent issuing from our current or future patent applications may be held invalid or unenforceable, including as a result of legal challenges by our competitors or other third parties;

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- our competitors or other third parties might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business; and
- we may choose not to file for patent protection in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent application covering such intellectual property.

### Risks Related to Government Regulation

***Even if we obtain regulatory approval for any of our therapeutic candidates, we will still face extensive and ongoing regulatory requirements and obligations, which may result in significant additional expense, and any therapeutic candidates, if approved, may face future development and regulatory difficulties.***

Any therapeutic candidate for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data, labeling, packaging, distribution, adverse event reporting, storage, recordkeeping, export, import, and advertising and promotional activities for such product, among other things, will be subject to extensive and ongoing requirements of and review by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, establishment registration and drug listing requirements, continued compliance with cGMP requirements relating to manufacturing, quality control, quality assurance, and corresponding maintenance of records and documents, compliance with applicable product tracking and tracing requirements, requirements regarding the distribution of samples to physicians and recordkeeping and GCP requirements for any clinical trials that we conduct post-approval.

Even if marketing approval of a therapeutic candidate is granted, the approval may be subject to limitations on the indicated uses for which the therapeutic candidate may be marketed or to the conditions of approval, including a requirement to implement a REMS. If a therapeutic candidate receives marketing approval, the accompanying label may limit the approved indicated use of the product, which could limit sales of the product. The FDA may also require costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of a product. The FDA closely regulates the post-approval marketing and promotion of drugs to ensure drugs are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers' communications regarding off-label use, and if we market our products for uses beyond their approved indications, we may be subject to enforcement action for off-label marketing. Violations of the Federal Food, Drug, and Cosmetic Act, relating to the promotion of prescription drugs, may lead to FDA enforcement actions and investigations alleging violations of federal and state healthcare fraud and abuse laws, as well as state consumer protection laws.

In addition, later discovery of previously unknown adverse events or other problems with our products, manufacturers, or manufacturing processes or failure to comply with regulatory requirements, may yield various results, including:

- restrictions on manufacturing such products;
- restrictions on the labeling or marketing of products;
- restrictions on product distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- issuance of warning letters or untitled letters;
- refusal to approve pending applications or supplements to approved applications that we submit;

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- recalls or market withdrawals of products;
- fines, restitution, or disgorgement of profits or revenues;
- suspension or termination of ongoing clinical trials;
- suspension or withdrawal of marketing approvals;
- refusal to permit the import or export of our products;
- product seizure; or
- injunctions, consent decrees, or the imposition of civil or criminal penalties.

***Obtaining and maintaining marketing approval or commercialization of our therapeutic candidates in the U.S. does not mean that we will be successful in obtaining marketing approval of our therapeutic candidates in other jurisdictions. Failure to obtain marketing approval in foreign jurisdictions would prevent any therapeutic candidates we may develop from being marketed in such jurisdictions, which, in turn, would materially impair our ability to generate revenue.***

In order to market and sell any therapeutic candidates we may develop in the EU and many other foreign jurisdictions, we must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the U.S. generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the U.S., it is required that the product be approved for reimbursement before the product can be approved for sale in that country. We may not obtain approvals from regulatory authorities outside the U.S. on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the U.S. does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We may not be able to file for marketing approvals and may not receive necessary approvals to commercialize our medicines in any jurisdiction, which would materially impair our ability to generate revenue.

***Our relationships with healthcare providers, patients and third-party payors are subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to significant penalties, including criminal sanctions, civil penalties, exclusion from government healthcare programs, contractual damages, reputational harm and diminished profits and future earnings.***

Although we do not currently have any drugs on the market, our current and future operations are subject to additional healthcare statutory and regulatory requirements and enforcement by the federal government and the states and foreign governments in which we conduct our business. Healthcare providers and third-party payors will play a primary role in the recommendation and prescription of VGL101 and future therapeutic candidates for which we obtain marketing approval. Our arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we research as well as market, sell and distribute VGL101 and future therapeutic candidates for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations, include the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, the purchase, lease, order, arrangement, or recommendation of any good, facility, item or service for which payment may be made, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs. A person or entity does not need to have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it to have committed a violation.

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Violations are subject to civil and criminal fines and penalties for each violation, plus up to three times the remuneration involved, imprisonment, and exclusion from government healthcare programs. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act or federal civil money penalties;

- the federal civil and criminal false claims laws and civil monetary penalty laws, such as the federal False Claims Act, which impose criminal and civil penalties and authorize civil whistleblower or qui tam actions, against individuals or entities for, among other things: knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent; knowingly making, using or causing to be made or used, a false statement of record material to a false or fraudulent claim or obligation to pay or transmit money or property to the federal government or knowingly concealing or knowingly and improperly avoiding or decreasing an obligation to pay money to the federal government. Manufacturers can be held liable under the federal False Claims Act even when they do not submit claims directly to government payors if they are deemed to “cause” the submission of false or fraudulent claims. The federal False Claims Act also permits a private individual acting as a “whistleblower” to bring actions on behalf of the federal government alleging violations of the federal False Claims Act and to share in any monetary recovery;
- HIPAA, which created new federal criminal statutes that prohibit a person from knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false, fictitious, or fraudulent statements or representations in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters; similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH and their respective implementing regulations, including the Final Omnibus Rule published in January 2013, which impose requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses as well as their respective business associates, independent contractors or agents of covered entities, that perform services for them that involve the creation, maintenance, receipt, use, or disclosure of, individually identifiable health information relating to the privacy, security and transmission of individually identifiable health information. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys’ fees and costs associated with pursuing federal civil actions. In addition, there may be additional federal, state and non-U.S. laws which govern the privacy and security of health and other personal information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts;
- the U.S. Physician Payments Sunshine Act and its implementing regulations, which requires certain manufacturers of drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children’s Health Insurance Program, with specific exceptions, to report annually to the Centers for Medicare & Medicaid Services information related to certain payments and other transfers of value to physicians, nurse practitioners, certified nurse anesthetists, physician assistants, clinical nurse specialists, and certified nurse midwives as well as teaching hospitals. Manufacturers are also required to disclose ownership and investment interests held by physicians and their immediate family members;



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- federal government price reporting laws, which require us to calculate and report complex pricing metrics in an accurate and timely manner to government programs; and
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm customers.

Additionally, we are subject to state and foreign equivalents of each of the healthcare laws and regulations described above, among others, some of which may be broader in scope and may apply regardless of the payor. Many U.S. states have adopted laws similar to the federal Anti-Kickback Statute and False Claims Act, and may apply to our business practices, including, but not limited to, research, distribution, sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental payors, including private insurers. In addition, some states have passed laws that require pharmaceutical companies to comply with the April 2003 Office of Inspector General Compliance Program Guidance for Pharmaceutical Manufacturers and/or the Pharmaceutical Research and Manufacturers of America's Code on Interactions with Healthcare Professionals. Several states also impose other marketing restrictions or require pharmaceutical companies to make marketing or price disclosures to the state and require the registration of pharmaceutical sales representatives. State and foreign laws, including for example the European Union General Data Protection Regulation, which became effective May 2018 also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. There are ambiguities as to what is required to comply with these state requirements and if we fail to comply with an applicable state law requirement we could be subject to penalties. Finally, there are state and foreign laws governing the privacy and security of health information, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

The scope and enforcement of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. Federal and state enforcement has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry. Ensuring that our internal operations and future business arrangements with third parties comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices do not comply with current or future statutes, regulations, agency guidance or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of the laws described above or any other governmental laws and regulations that may apply to us, we may be subject to significant penalties, including administrative, civil and criminal penalties, damages, fines, disgorgement, the exclusion from participation in federal and state healthcare programs, reputational harm, and the curtailment or restructuring of our operations, as well as additional reporting obligations and oversight if we become subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with these laws. Further, defending against any such actions can be costly and time consuming, and may require significant financial and personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired. If any of the physicians or other providers or entities with whom we expect to do business are found to not be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs and individual imprisonment. If any of the above occur, our ability to operate our business and our results of operations could be adversely affected.

***We are subject to certain U.S. and certain foreign anti-corruption, anti-money laundering, export control, sanctions and other trade laws and regulations. We can face serious consequences for violations.***

U.S. and foreign anti-corruption, anti-money laundering, export control, sanctions and other trade laws and regulations prohibit, among other things, companies and their employees, agents, CROs, legal counsel, accountants, consultants, contractors and other partners from authorizing, promising, offering, providing, soliciting or receiving directly or indirectly, corrupt or improper payments or anything else of value to or from

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recipients in the public or private sector. Violations of these laws can result in substantial criminal fines and civil penalties, imprisonment, the loss of trade privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm and other consequences. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities and other organizations. We also expect our non-U.S. activities to increase over time. We expect to rely on third parties for research, preclinical studies and clinical trials and/or to obtain necessary permits, licenses, patent registrations and other marketing approvals. We can be held liable for the corrupt or other illegal activities of our personnel, agents or partners, even if we do not explicitly authorize or have prior knowledge of such activities.

Any violations of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm and other consequences.

***Healthcare legislative reform discourse and potential or enacted measures may have a material adverse impact on our business and results of operations and legislative or political discussions surrounding the desire for and implementation of pricing reforms may adversely impact our business.***

Payors, whether domestic or foreign, or governmental or private, are developing increasingly sophisticated methods of controlling healthcare costs and those methods are not always specifically adapted for new technologies such as gene therapy and therapies addressing rare diseases such as those we are developing. In both the U.S. and certain foreign jurisdictions, there have been a number of legislative and regulatory changes to the health care system that could impact our ability to sell our products profitably. In particular, in 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively, the ACA, was enacted, which, among other things, subjected biologic products to potential competition by lower-cost biosimilars; addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected; increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program; extended the Medicaid Drug Rebate program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations; subjected manufacturers to new annual fees and taxes for certain branded prescription drugs; created a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% (increased to 70% pursuant to the Bipartisan Budget Act of 2018, effective as of January 1, 2019) point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D; and provided incentives to programs that increase the federal government's comparative effectiveness research.

Since its enactment, there have been numerous judicial, administrative, executive, and legislative challenges to certain aspects of the ACA. On June 17, 2021, the U.S. Supreme Court dismissed the most recent judicial challenge to the ACA brought by several states without specifically ruling on the constitutionality of the ACA. Prior to the Supreme Court's decision, President Biden issued an Executive Order to initiate a special enrollment period from February 15, 2021 through August 15, 2021 for purposes of obtaining health insurance coverage through the ACA marketplace. The Executive Order also instructed certain governmental agencies to review and reconsider their existing policies and rules that limit access to healthcare, including among others, reexamining Medicaid demonstration projects and waiver programs that include work requirements, and policies that create unnecessary barriers to obtaining access to health insurance coverage through Medicaid or the ACA. It is unclear how other healthcare reform measures of the Biden administrations or other efforts, if any, to challenge repeal or replace the ACA, will impact our business.

In addition, other legislative and regulatory changes have been proposed and adopted in the U.S. since the ACA was enacted:

- On August 2, 2011, the U.S. Budget Control Act of 2011, among other things, included aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect

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on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030, with the exception of a temporary suspension from May 1, 2020 through December 31, 2021, unless additional Congressional action is taken.

- On January 2, 2013, the U.S. American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers.
- On April 13, 2017, Centers for Medicare & Medicaid Services, or CMS, an agency within the U.S. Department of Health and Human Services, published a final rule that gives states greater flexibility in setting benchmarks for insurers in the individual and small group marketplaces, which may have the effect of relaxing the essential health benefits required under the ACA for plans sold through such marketplaces.
- On May 30, 2018, the Right to Try Act, was signed into law. The law, among other things, provides a federal framework for certain patients to access certain investigational new drug products that have completed a Phase 1 clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA permission under the FDA expanded access program. There is no obligation for a pharmaceutical manufacturer to make its drug products available to eligible patients as a result of the Right to Try Act.
- On May 23, 2019, CMS published a final rule to allow Medicare Advantage Plans the option of using step therapy for Part B drugs beginning January 1, 2020.
- On December 20, 2019, former President Trump signed into law the Further Consolidated Appropriations Act (H.R. 1865), which repealed the Cadillac tax, the health insurance provider tax, and the medical device excise tax. It is impossible to determine whether similar taxes could be instated in the future.

Additionally, there has been increasing legislative and enforcement interest in the U.S. with respect to drug pricing practices. Specifically, there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, and review the relationship between pricing and manufacturer patient programs.

At the state level, legislatures have increasingly passed legislation and implemented regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

We expect that the ACA, as well as other healthcare reform measures that may be adopted in the future, may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, lower reimbursement, and new payment methodologies. This could lower the price that we receive for our products. Any denial in coverage or reduction in reimbursement from Medicare or other government-funded programs may result in a similar denial or reduction in payments from private payors, which may prevent us from being able to generate sufficient revenue, attain profitability or commercialize our products. It is not clear how other future potential changes to the ACA will change the reimbursement model and market outlook for our current and future therapeutic candidates.

***The commercial success of our therapeutic candidates will depend upon the degree of market acceptance of such therapeutic candidates by physicians, patients, healthcare payors and others in the medical community.***

Our therapeutic candidates may not be commercially successful. Even if any of our therapeutic candidates receive regulatory approval, they may not gain market acceptance among physicians, patients, healthcare payors

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or the medical community. The commercial success of any of our current or future therapeutic candidates will depend significantly on the broad adoption and use of the resulting product by physicians and patients for approved indications. The degree of market acceptance of our therapeutics will depend on a number of factors, including:

- demonstration of clinical efficacy and safety compared to other more-established products;
- the indications for which our therapeutic candidates are approved;
- the limitation of our targeted patient population and other limitations or warnings contained in any FDA-approved labeling;
- acceptance of a new drug for the relevant indication by healthcare providers and their patients;
- the pricing and cost-effectiveness of our therapeutics, as well as the cost of treatment with our therapeutics in relation to alternative treatments and therapies;
- our ability to obtain and maintain sufficient third-party coverage and adequate reimbursement from government healthcare programs, including Medicare and Medicaid, private health insurers and other third-party payors;
- the willingness of patients to pay all, or a portion of, out-of-pocket costs associated with our therapeutics in the absence of sufficient third-party coverage and adequate reimbursement;
- any restrictions on the use of our therapeutics, and the prevalence and severity of any adverse effects;
- potential product liability claims;
- the timing of market introduction of our therapeutics as well as competitive drugs;
- the effectiveness of our or any of our current or potential future collaborators' sales and marketing strategies; and
- unfavorable publicity relating to the product.

If any therapeutic candidate is approved but does not achieve an adequate level of acceptance by physicians, hospitals, healthcare payors or patients, we may not generate sufficient revenue from that product and may not become or remain profitable. Our efforts to educate the medical community and third-party payors regarding the benefits of our therapeutics may require significant resources and may never be successful.

***Even if we are able to commercialize our therapeutic candidates, the products may not receive coverage and adequate reimbursement from third-party payors in the U.S. and in other countries in which we seek to commercialize our products, which could harm our business.***

In the U.S. and markets in other countries, patients generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. Adequate coverage and reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors is critical to new product acceptance. Our ability to successfully commercialize our therapeutic candidates will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Even if coverage is provided, the approved reimbursement amount may not be high enough to allow us to establish or maintain pricing sufficient to realize a sufficient return on our investment. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels.

There is also significant uncertainty related to the insurance coverage and reimbursement of newly approved products and coverage may be more limited than the purposes for which the medicine is approved by the FDA or comparable foreign regulatory authorities. In the U.S., the principal decisions about reimbursement for new medicines are typically made by the CMS. CMS decides whether and to what extent a new medicine will be covered and reimbursed under Medicare and private payors tend to follow CMS to a substantial degree.

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Factors payors consider in determining reimbursement are based on whether the product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the U.S. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that reimbursement will be available for any therapeutic candidate that we commercialize and, if reimbursement is available, the level of reimbursement. In addition, many pharmaceutical manufacturers must calculate and report certain price reporting metrics to the government, such as average sales price, or ASP, and best price. Penalties may apply in some cases when such metrics are not submitted accurately and timely. Further, these prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its Member States to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost effectiveness of a particular therapeutic candidate to currently available therapies. A Member State may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our therapeutic candidates. Historically, products launched in the European Union do not follow price structures of the U.S. and generally prices tend to be significantly lower.

***If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could harm our business.***

We are subject to numerous foreign, federal, state and local environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources, including any available insurance.

In addition, our leasing and operation of real property may subject us to liability pursuant to certain of these laws or regulations. Under existing U.S. environmental laws and regulations, current or previous owners or operators of real property and entities that disposed or arranged for the disposal of hazardous substances may be held strictly, jointly and severally liable for the cost of investigating or remediating contamination caused by hazardous substance releases, even if they did not know of and were not responsible for the releases.

We could incur significant costs and liabilities which may adversely affect our financial condition and operating results for failure to comply with such laws and regulations, including, among other things, civil or

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criminal fines and penalties, property damage and personal injury claims, costs associated with upgrades to our facilities or changes to our operating procedures, or injunctions limiting or altering our operations. Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations, which are becoming increasingly more stringent, may impair our research, development or production efforts. Our failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

### ***Legislation or other changes in U.S. tax law could adversely affect our business and financial condition.***

The rules dealing with U.S. federal, state, and local income taxation are constantly under review by persons involved in the legislative process and by the Internal Revenue Service and the U.S. Treasury Department. Changes to tax laws (which changes may have retroactive application) could adversely affect us or holders of our common stock. In recent years, many changes have been made to applicable tax laws and changes are likely to continue to occur in the future. For example, the Tax Cuts and Jobs Act (the TCJA) was enacted in 2017 and made significant changes to corporate taxation, including the reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, the limitation of the tax deduction for net interest expense to 30% of adjusted taxable income (except for certain small businesses), the limitation of the deduction for net operating losses from taxable years beginning after December 31, 2017 to 80% of current year taxable income and the elimination of net operating loss carrybacks (though any such net operating losses may be carried forward indefinitely) and the modification or repeal of many business deductions and credits, in each case, as modified by the CARES Act (as defined below). In addition, on March 27, 2020, former President Trump signed into law the Coronavirus Aid, Relief, and Economic Security Act (the CARES Act), which included certain changes in tax law intended to stimulate the U.S. economy in light of the COVID-19 coronavirus outbreak, including temporary beneficial changes to the treatment of net operating losses, interest deductibility limitations and payroll tax matters. Under the CARES Act, the limitation of the tax deduction for net operating losses to 80% of taxable income applies only to taxable years beginning after December 31, 2020 and net operating losses generated in 2018, 2019 and 2020 by a calendar-year taxpayer may be carried back five taxable years. Further, under the CARES Act, the limitation of the tax deduction for net interest expense to 30% of adjusted taxable income is increased to 50% of adjusted taxable income for taxable years beginning in 2019 and 2020.

Additional changes to U.S. federal income tax law are currently being contemplated. Future changes in tax laws could have a material adverse effect on our business, cash flow, financial condition or results of operations. It cannot be predicted whether, when, in what form, or with what effective dates, new tax laws may be enacted, or regulations and rulings may be enacted, promulgated or issued under existing or new tax laws, which could result in an increase in our or our stockholders' tax liability or require changes in the manner in which we operate in order to minimize or mitigate any adverse effects of changes in tax law or in the interpretation thereof. We urge investors to consult with their legal and tax advisers regarding the implications of potential changes in tax laws on an investment in our common stock.

### ***Our ability to use our U.S. net operating loss carryforwards and certain other U.S. tax attributes may be limited.***

Our ability to use our U.S. federal and state net operating losses to offset potential future taxable income and related income taxes that would otherwise be due is dependent upon our generation of future taxable income, and we cannot predict with certainty when, or whether, we will generate sufficient taxable income to use all of our net operating losses.

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Under the TCJA, as amended by the CARES Act, unused U.S. federal net operating losses generated for tax years beginning after December 31, 2017 are not subject to expiration and may be carried forward indefinitely. Such U.S. federal net operating losses generally may not be carried back to prior taxable years, except that, net operating losses generated in 2018, 2019 and 2020 may be carried back to each of the five tax years preceding the tax years of such losses. Additionally, for taxable years beginning after December 31, 2020, the deductibility of such U.S. federal net operating losses is limited to 80% of our taxable income in any future taxable year. In addition, both our current and our future unused U.S. federal net operating losses and tax credits may be subject to limitations under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended (the Code), if we undergo an “ownership change,” generally defined as a greater than 50 percentage point change (by value) in a corporation’s equity ownership by certain stockholders over a rolling three-year period. We may have experienced such ownership changes in the past, and we may experience ownership changes in the future as a result of this offering or subsequent shifts in our stock ownership, some of which are outside our control. Our net operating losses and tax credits may also be impaired or restricted under state law. As of December 31, 2020, we had U.S. federal and state net operating loss carryforwards of approximately \$5.3 million and \$5.2 million, respectively, and our ability to utilize those net operating loss carryforwards could be limited by an “ownership change” as described above, which could result in increased tax liability to us.

### Risks Related to Employee Matters and Managing our Growth

#### *Our future success depends on our ability to retain key employees and to attract, retain and motivate qualified personnel.*

We are highly dependent on the expertise of our executive officers. Although we have entered into employment agreements and/or offer letters with our executive officers, each of them may terminate their employment with us at any time. Our industry has experienced a high rate of turnover in recent years. Our ability to compete in the highly competitive pharmaceuticals industry depends upon our ability to attract, retain and motivate highly skilled and experienced personnel with scientific, clinical, regulatory, manufacturing and management skills and experience. We conduct our operations in the Cambridge, MA area, a region that is home to many other pharmaceutical companies as well as many academic and research institutions, resulting in fierce competition for qualified personnel. We may not be able to attract or retain qualified personnel in the future due to the intense competition for a limited number of qualified personnel among pharmaceutical companies. Many of the other pharmaceutical companies against which we compete have greater financial and other resources, different risk profiles and a longer history in the industry than we do. Our competitors may provide higher compensation, more diverse opportunities and/or better opportunities for career advancement. Any or all of these competing factors may limit our ability to continue to attract and retain high quality personnel, which could negatively affect our ability to successfully develop and commercialize our therapeutic candidates and to grow our business and operations as currently contemplated.

To induce valuable employees to remain at our company, in addition to salary and cash incentives, we have provided stock options that vest over time. The value to employees of stock options that vest over time may be significantly affected by movements in our stock price that are beyond our control and may at any time be insufficient to counteract more lucrative offers from other companies. Despite our efforts to retain valuable employees, members of our management, scientific and development teams may terminate their employment with us on short notice. For example, employment of our key employees is at-will, which means that any of our employees could leave our employment at any time, with or without notice.

In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

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***We expect to expand our development and regulatory capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.***

As of August 31, 2021, we had 26 full-time employees. We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of clinical development, clinical operations, manufacturing, regulatory affairs and, if any of our therapeutic candidates receives marketing approval, sales, marketing and distribution. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth and potentially with developing sales, marketing and distribution infrastructure, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources.

If we are not able to effectively manage growth and expand our organization, we may not be able to successfully implement the tasks necessary to further develop and commercialize VGL101, our other pipeline therapeutic candidates or any future therapeutic candidates and, accordingly, may not achieve our research, development and commercialization goals.

***Our employees and independent contractors, including principal investigators, CROs, consultants and vendors, may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.***

We are exposed to the risk that our employees and independent contractors, including principal investigators, CROs, consultants and vendors may engage in misconduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to us that violate: (i) the laws and regulations of the FDA and other similar regulatory requirements, including those laws that require the reporting of true, complete and accurate information to such authorities, (ii) manufacturing standards, including cGMP requirements, (iii) federal and state data privacy, security, fraud and abuse and other healthcare laws and regulations in the U.S. and abroad or (iv) laws that require the true, complete and accurate reporting of financial information or data. Activities subject to these laws also involve the improper use or misrepresentation of information obtained in the course of clinical trials, the creation of fraudulent data in our preclinical studies or clinical trials or illegal misappropriation of drug product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. In addition, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and financial results, including, without limitation, the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgements, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, imprisonment, contractual damages, reputational harm, diminished profits and future earnings, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

***We face significant competition, and if our competitors develop technologies or therapeutic candidates more rapidly than we do or their technologies are more effective, our business and our ability to develop and successfully commercialize products may be adversely affected.***

The biotechnology and pharmaceutical industry is characterized by rapidly changing technologies, significant competition and a strong emphasis on intellectual property. These characteristics also apply to the



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development and commercialization of treatments in neurodegenerative diseases, including AD. While we believe that our focus, expertise, scientific knowledge and intellectual property provide us with competitive advantages, we face competition from several different sources, including large and small biopharmaceutical companies, academic research institutions, government agencies and public and private research organizations, that conduct research, seek patent protection, and establish collaborative arrangements for research, development, manufacturing and commercialization.

No products have been approved to treat ALSP, and we are not aware of any in clinical development other than VGL101. Academics have investigated the use of hematopoietic stem cell transplantation in a small number of ALSP patients, however, we believe this modality has limited benefits and several key limitations.

We are aware of one company, bluebirdbio, Inc., which received marketing approval in July 2021 in the European Union for a cALD treatment. U.S. development of the product was put on clinical hold in August 2021 following a report that one treated patient developed myelodysplastic syndrome, a type of blood cancer. As of September 2021, a second company, Minoryx Therapeutics, Inc., is developing a small molecule therapeutic for the treatment of cALD in a Phase 2 trial that is registrational enabling for Europe.

Currently, there are two other companies that are in the early stages of developing TREM2 agonists for the treatment of AD. We consider our direct competitors to be Alektor, Inc. and its corporate partner, AbbVie Inc., Denali Therapeutics, Inc. and its corporate partner, Takeda Pharmaceutical Company, Cognyx Pharmaceuticals, Inc. and Muna Therapeutics, Inc.

There are several existing treatments marketed today for the treatment of AD, which primarily provide symptomatic relief. Notably, Biogen Inc., recently received FDA accelerated approval for a product based on reduction of amyloid beta plaques, a biomarker that may predict a reduction in clinical decline; continued approval may require demonstration of disease-modifying benefits. Other pharmaceutical and biotechnology companies are pursuing disease-modifying treatments for AD and other common neurodegenerative disorders by seeking to modulate a range of targets. Companies pursuing microglia-targeted therapeutics include Janssen Pharmaceuticals, Inc., Alektor Inc., Denali Therapeutics, Inc., Elixiron Therapeutics, Inc., Muna Therapeutics, Inc., Cognyx Pharmaceuticals, Inc., and CAMP4 Therapeutics Corporation, Inc.

Many of our competitors have significant financial, technical, manufacturing, marketing, sales and supply resources or experience. These competitors also compete with us in recruiting qualified scientific and management personnel as well as establishing clinical trial sites and patient registration for clinical trials, and in acquiring new technologies. If we successfully obtain approval for any therapeutic candidate, we will face competition based on many different factors, including the safety and effectiveness of our therapeutics, the ease with which our therapeutics can be administered, the timing and scope of regulatory approvals for these products, the availability and cost of manufacturing, marketing and sales capabilities, price, reimbursement coverage and patent position. Competing products could present superior treatment alternatives, including by being more effective, safer, more convenient, less expensive or marketed and sold more effectively than any products we may develop. Competitive products or technological approaches may make any products we develop obsolete or noncompetitive before we recover the expense of developing and commercializing our therapeutic candidates. If we are unable to compete effectively, our opportunity to generate revenue from the sale of the therapeutics we may develop could be adversely affected.

***We will incur increased costs as a result of operating as a public company, and our management will devote substantial time to related compliance initiatives.***

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company, and these expenses may increase even more after we are no longer an “emerging growth company.” We will be subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (Exchange Act), the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Protection Act, as well as

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rules adopted, and to be adopted, by the SEC and Nasdaq. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, we expect these rules and regulations to substantially increase our legal and financial compliance costs and to make some activities more time-consuming and costly, which will increase our operating expenses. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain sufficient coverage, particularly in light of recent cost increases related to coverage. We cannot accurately predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

In addition, as a public company we will be required to incur additional costs and obligations in order to comply with SEC rules that implement Section 404 of the Sarbanes-Oxley Act. Under these rules, beginning with our second annual report on Form 10-K after we become a public company, we will be required to make a formal assessment of the effectiveness of our internal control over financial reporting, and once we cease to be an emerging growth company, we may be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404 within the prescribed period, we will be engaging in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of our internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are designed and operating effectively, and implement a continuous reporting and improvement process for internal control over financial reporting.

### Risks Related to This Offering and Ownership of Our Common Stock

***We do not know whether an active, liquid and orderly trading market will develop for our common stock or what the market price of our common stock will be and as a result it may be difficult for investors to sell their shares of our common stock.***

Prior to this offering, no market for shares of our common stock existed and an active trading market for our shares may never develop or be sustained following this offering. We will determine the initial public offering price for our common stock through negotiations with the underwriters, and the negotiated price may not be indicative of the market price of our common stock after this offering. The market value of our common stock may decrease from the initial public offering price. As a result of these and other factors, investors may be unable to resell their shares of our common stock at or above the initial public offering price. The lack of an active market may impair investors' ability to sell their shares at the time they wish to sell them or at a price that they consider reasonable. The lack of an active market may also reduce the fair market value of investors' shares. Furthermore, an inactive market may also impair our ability to raise capital by selling shares of our common stock and may impair our ability to enter into strategic collaborations or acquire companies, technologies or other assets by using our shares of common stock as consideration.

***The market price of our common stock may be volatile, and investors could lose all or part of their investment.***

The trading price of our common stock following this offering is likely to be highly volatile and subject to wide fluctuations in response to various factors, some of which we cannot control. The stock market in general, and pharmaceutical and biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies.

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Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance. In addition to the factors discussed in this “Risk Factors” section and elsewhere in this prospectus, these factors include:

- the timing and results of INDs, preclinical studies and clinical trials of our therapeutic candidates or those of our competitors;
- the success of competitive products or announcements by potential competitors of their product development efforts;
- our decision to initiate a clinical trial, not to initiate a clinical trial or to terminate an existing clinical trial;
- any delay in our regulatory filings for our therapeutic candidates and any adverse development or perceived adverse development with respect to the applicable regulatory authority’s review of such filings;
- adverse developments concerning our potential future in-house manufacturing facilities or CMOs;
- regulatory actions with respect to our therapeutics or therapeutic candidates or our competitors’ products or therapeutic candidates;
- actual or anticipated changes in our growth rate relative to our competitors;
- the size and growth of our initial target markets;
- unanticipated serious safety concerns related to the use of our therapeutic candidates;
- regulatory or legal developments in the U.S. and other countries;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- significant lawsuits, including patent or stockholder litigation;
- publication of research reports about us or our industry, or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- the recruitment or departure of key personnel;
- announcements by us or our competitors of significant acquisitions, strategic collaborations, joint ventures, collaborations or capital commitments;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- market conditions in the pharmaceutical and biotechnology sector;
- changes in the structure of healthcare payment systems;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- our failure to meet the estimates and projections of the investment community or that we may otherwise provide to the public;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us, our insiders or our other stockholders;
- expiration of market stand-off or lock-up agreements;
- the impact of any natural disasters or public health emergencies, such as the COVID-19 pandemic;
- general economic, political, industry and market conditions; and
- other events or factors, many of which are beyond our control.

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The realization of any of the above risks or any of a broad range of other risks, including those described in this “Risk Factors” section, could have a dramatic and adverse impact on the market price of our common stock. If the market price of our common stock after this offering does not exceed the public offering price, you may not realize any return on your investment in us and may lose some or all of your investment.

***If securities or industry analysts do not publish research or reports, or if they publish adverse or misleading research or reports, regarding us, our business or our market, our stock price and trading volume could decline.***

The trading market for our common stock will be influenced by the research and reports that securities or industry analysts publish about us, our business or our market. We do not currently have and may never obtain research coverage by securities or industry analysts. If no or few securities or industry analysts commence coverage of us, our stock price would be negatively impacted. In the event we obtain securities or industry analyst coverage, if any of the analysts who cover us issue adverse or misleading research or reports regarding us, our business model, our intellectual property, our stock performance or our market, or if our operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

***Unstable market and economic conditions may have serious adverse consequences on our business, financial condition and stock price.***

As widely reported, global credit and financial markets have experienced extreme volatility and disruptions in the past several years, most recently due to the COVID-19 pandemic, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. There can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions, whether due to the evolving effects of the COVID-19 pandemic or otherwise, will not occur. Our general business strategy may be adversely affected by any such economic downturn, volatile business environment or continued unpredictable and unstable market conditions. If the current equity and credit markets deteriorate, or do not improve, it may make any necessary debt or equity financing more difficult, more costly, and more dilutive.

Failure to secure necessary financing in a timely manner and on favorable terms could have a material adverse event on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans. In addition, there is a risk that one or more of our current service providers, manufacturers and other partners may not survive these difficult economic times, which could directly affect our ability to attain our operating goals on schedule and on budget. After the completion of this offering, our stock price may decline due in part to the volatility of the stock market and the general economic downturn.

***Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.***

Prior to this offering, our executive officers, directors, holders of 5% or more of our capital stock and their respective affiliates beneficially owned approximately 25% of our outstanding voting stock and, upon the closing of this offering, that same group will beneficially own approximately % of our outstanding voting stock (based on the number of shares of common stock outstanding as of June 30, 2021, assuming no exercise of the underwriters’ option to purchase additional shares, no exercise of outstanding options and no purchases of shares in this offering by any of this group), in each case assuming the conversion of all outstanding shares of our Series A and Series B preferred stock into shares of our common stock immediately prior to the closing of this offering.

These stockholders, acting together, may be able to impact matters requiring stockholder approval. For example, they may be able to impact elections of directors, amendments of our organizational documents or

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approval of any merger, sale of assets or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that investors may feel are in their best interest as one of our stockholders. The interests of this group of stockholders may not always coincide with each investor's interests or the interests of other stockholders and they may act in a manner that advances their best interests and not necessarily those of other stockholders, including seeking a premium value for their common stock, and might affect the prevailing market price for our common stock.

***Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.***

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. After this offering, we will have outstanding \_\_\_\_\_ shares of common stock, based on the number of shares outstanding as of June 30, 2021, assuming: (i) no exercise of the underwriters' option to purchase additional shares and (ii) the conversion of all 54,179,688 outstanding shares of our Series A and Series B preferred stock into shares of common stock immediately prior to the completion of this offering. This includes the shares that we sell in this offering, which may be resold in the public market immediately without restriction, unless purchased by our affiliates. Of the remaining shares, \_\_\_\_\_ shares of our common stock are currently restricted as a result of securities laws or market stand-off or lock-up agreements but will be able to be sold after this offering as described in the section titled "Shares Eligible for Future Sale." Moreover, after this offering, holders of an aggregate of shares of our common stock will have rights, subject to certain conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We also intend to register all shares of common stock that we may issue under our equity incentive plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates and the lock-up agreements described in the section titled "Underwriting."

Our executive officers, directors and the holders of substantially all of our capital stock and securities convertible into or exchangeable for our capital stock have entered into market stand-off agreements with us and lock-up agreements with the underwriters under which they have agreed, subject to specific exceptions described in the section titled "Underwriting," not to, among other things, sell, directly or indirectly, any shares of common stock without the permission of Morgan Stanley and Jefferies for a period of 180 days following the date of this prospectus. We refer to such period as the lock-up period. When the lock-up period expires, we and our securityholders subject to a lock-up agreement or market stand-off agreement will be able to sell our shares in the public market. In addition, Morgan Stanley and Jefferies may, in their sole discretion, release all or some portion of the shares subject to lock-up agreements at any time and for any reason. See the description of the market stand-off agreement with us and the lock-up agreement with the underwriters in the section titled "Shares Eligible for Future Sale" for more information. Sales of a substantial number of such shares upon expiration of the lock-up and market stand-off agreements, the perception that such sales may occur, or early release of these agreements, could cause our market price to fall or make it more difficult for investors to sell their common stock at a time and price that they deem appropriate.

***Investors will incur immediate and substantial dilution as a result of this offering.***

As of June 30, 2021, investors that purchase common stock in this offering will incur immediate and substantial dilution of approximately \$ \_\_\_\_\_ per share, representing the difference between the assumed initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, and our pro forma as adjusted net tangible book value per share after giving effect to this offering and the automatic conversion of all outstanding shares of our Series A and Series B preferred stock immediately prior to the closing of this offering. As of June 30, 2021, there were 4,986,551 shares subject to outstanding options with a weighted-average exercise price of \$0.89 per share. After June 30,

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2021, an additional 3,115,115 shares are subject to outstanding options with a weighted-average exercise price of \$2.17. To the extent that these outstanding options are ultimately exercised or the underwriters exercise their option to purchase additional shares, investors will incur further dilution. See the section titled "Dilution" for a further description of the dilution investors will experience immediately after this offering.

***Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our 2021 Plan, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.***

We expect that significant additional capital may be needed in the future to continue our planned operations, including conducting clinical trials, commercialization efforts, expanded research and development activities and costs associated with operating a public company. To raise capital, we may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell common stock, convertible securities or other equity securities, investors may be materially diluted by subsequent sales. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to the holders of our common stock. Pursuant to our 2021 Stock Option and Grant Plan (2021 Plan), our management is authorized to grant stock options to our employees, directors and consultants. If the number of shares reserved under our 2021 Plan is increased pursuant to the terms of the 2021 Plan, our stockholders may experience additional dilution, which could cause our stock price to fall. Any of the above events could significantly harm our business, prospects, financial condition and results of operations and cause the price of our common stock to decline.

***Raising additional capital may cause dilution to our stockholders, including purchasers of common stock in this offering, restrict our operations or require us to relinquish rights to our technologies or therapeutic candidates.***

We do not have any committed external source of funds or other support for our development and commercialization efforts, and we cannot be certain that additional funding will be available on acceptable terms, or at all. Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through equity offerings, debt financings, or other capital sources, including potential collaborations, licenses and other similar arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Any future debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, selling or licensing our assets, making capital expenditures, declaring dividends or encumbering our assets to secure future indebtedness. Such restrictions could adversely impact our ability to conduct our operations and execute our business plan.

As a result of our recurring losses from operations and recurring negative cash flows from operations, there is uncertainty regarding our ability to maintain liquidity sufficient to operate our business effectively. If we raise additional funds through future collaborations, licenses and other similar arrangements, we may have to relinquish valuable rights to our future revenue streams, research programs or therapeutic candidates, or grant licenses on terms that may not be favorable to us and/or that may reduce the value of our common stock. If we are unable to raise additional funds through equity or debt financings or other arrangements when needed or on terms acceptable to us, we would be required to delay, limit, reduce, or terminate our product development or future commercialization efforts or grant rights to develop and market therapeutic candidates that we would otherwise prefer to develop and market ourselves. Any of the above events could significantly harm our business, prospects, financial condition and results of operations and cause the price of our common stock to decline.

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***We are an “emerging growth company” and a smaller reporting company, and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies and smaller reporting companies will make our common stock less attractive to investors.***

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012 (JOBS Act). For as long as we continue to be an emerging growth company, we intend to take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure in this prospectus;
- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended (Sarbanes-Oxley Act);
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements; and
- exemptions from the requirements of holding nonbinding advisory stockholder votes on executive compensation and stockholder approval of any golden parachute payments not previously approved.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to avail ourselves of this exemption from new or revised accounting standards and, therefore, will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. As a result, our financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

We will remain an emerging growth company until the earliest to occur of: (i) the last day of the fiscal year in which we have more than \$1.07 billion in annual revenue; (ii) the date we qualify as a “large accelerated filer,” with at least \$700.0 million of equity securities held by non-affiliates; (iii) the date on which we have issued more than \$1.0 billion in non-convertible debt securities during the prior three-year period; and (iv) the last day of the fiscal year ending after the fifth anniversary of our initial public offering.

Even after we no longer qualify as an emerging growth company, we may still qualify as a “smaller reporting company,” which would allow us to continue to take advantage of many of the same exemptions from disclosure requirements, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions.

***We will have broad discretion in the use of the net proceeds from this offering and may not use them effectively.***

Our management will have broad discretion in the application of the net proceeds from this offering, and investors will be relying on the judgment of our management regarding the application of these proceeds. Investors will not have the opportunity, as part of their investment decision, to assess whether we are using the

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proceeds appropriately. Our management might not apply the net proceeds in ways that ultimately increase the value of investors' investment. If we do not invest or apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause our stock price to decline.

***We do not intend to pay dividends on our common stock so any returns will be limited to the value of our stock.***

We have never declared or paid any cash dividends on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to any appreciation in the value of their stock.

***Anti-takeover provisions in our certificate of incorporation and bylaws, as they will be in effect upon closing of this offering, and Delaware law might discourage, delay or prevent a change in control of our company or changes in our management and, therefore, depress the market price of our common stock.***

Our third amended and restated certificate of incorporation and amended and restated bylaws, as they will be in effect upon closing of this offering, will contain provisions that could depress the market price of our common stock by acting to discourage, delay or prevent a change in control of our company or changes in our management that the stockholders of our company may deem advantageous. These provisions, among other things:

- a board of directors divided into three classes serving staggered three-year terms, such that not all members of the board will be elected at one time;
- a prohibition on stockholder actions through written consent, which requires that all stockholder actions be taken at a meeting of our stockholders;
- a requirement that special meetings of stockholders be called only by the board of directors acting pursuant to a resolution approved by the affirmative vote of a majority of the directors then in office;
- advance notice requirements for stockholder proposals and nominations for election to our board of directors;
- a requirement that no member of our board of directors may be removed from office by our stockholders except for cause and, in addition to any other vote required by law, upon the approval of not less than two-thirds of all outstanding shares of our voting stock then entitled to vote in the election of directors;
- a requirement of approval of not less than two-thirds of all outstanding shares of our voting stock to amend any bylaws by stockholder action or to amend specific provisions of our certificate of incorporation; and
- the authority of the board of directors to issue preferred stock on terms determined by the board of directors without stockholder approval and which preferred stock may include rights superior to the rights of the holders of common stock.

In addition, Section 203 of the General Corporation Law of the State of Delaware (DGCL) prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person which together with its affiliates owns, or within the last three years has owned, 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner.

Any provision of our fourth amended and restated certificate of incorporation, amended and restated bylaws or Delaware law that has the effect of delaying or preventing a change in control could limit the opportunity for



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our stockholders to receive a premium for their shares of our capital stock and could also affect the price that some investors are willing to pay for our common stock.

***Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.***

Upon the closing of this offering, we will become subject to the periodic reporting requirements of the Exchange Act. We designed our disclosure controls and procedures to reasonably assure that information we must disclose in reports we file or submit under the Exchange Act is accumulated and communicated to management, and recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures or internal controls and procedures, no matter how well-conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

These inherent limitations include the facts that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

***Our bylaws that will become effective upon the effectiveness of this registration statement designate certain courts as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.***

Our bylaws that will become effective upon the completion of this offering provide that, unless we consent in writing to an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for any state law claims for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of, or a claim based on, fiduciary duty owed by any of our current or former directors, officers, and employees to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or our bylaws (including the interpretation, validity or enforceability thereof), or (iv) any action asserting a claim that is governed by the internal affairs doctrine, in each case subject to the Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein (Delaware Forum Provision). The Delaware Forum Provision will not apply to any causes of action arising under the Securities Act or the Exchange Act. Our amended and restated bylaws further provide that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the U.S. shall be the sole and exclusive forum for resolving any complaint asserting a cause or causes of action arising under the Securities Act (Federal Forum Provision). In addition, our amended and restated bylaws provide that any person or entity purchasing or otherwise acquiring any interest in shares of our common stock is deemed to have notice of and consented to the foregoing provisions; provided, however, that stockholders cannot and will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder.

The Delaware Forum Provision and the Federal Forum Provision in our amended and restated bylaws may impose additional litigation costs on stockholders in pursuing any such claims. Additionally, the forum selection clauses in our amended and restated bylaws may limit our stockholders' ability to bring a claim in a forum that they find favorable for disputes with us or our directors, officers or employees, which may discourage such lawsuits against us and our directors, officers and employees even though an action, if successful, might benefit our stockholders. In addition, while the Delaware Supreme Court ruled in March 2020 that federal forum selection provisions purporting to require claims under the Securities Act be brought in federal court were "facially valid" under Delaware law, there is uncertainty as to whether other courts will enforce our Federal Forum Provision. If the Federal Forum Provision is found to be unenforceable, we may incur additional costs associated with resolving such matters. The Federal Forum Provision may also impose additional litigation costs

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on stockholders who assert that the provision is not enforceable or invalid. The Court of Chancery of the State of Delaware and the federal district courts of the U.S. may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments may be more or less favorable to us than our stockholders.

***We may be subject to securities litigation, which is expensive and could divert management attention.***

The market price of our common stock may be volatile and, in the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

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**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus, including the sections entitled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Business,” contains express or implied forward-looking statements that are based on our management’s belief and assumptions and on information currently available to our management. These statements relate to future events or our future operational or financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Forward-looking statements in this prospectus include, but are not limited to, statements about:

- the initiation timing, progress, results and cost of VGL101 and our small molecule TREM2 agonists program, as well as our research and development programs and our current and future preclinical and clinical studies, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the trials will become available and our current and future programs;
- the application of our precision medicine approach to develop microglia-targeted therapies for patients with rare, genetically defined neurodegenerative diseases and subsequently advance into neurodegenerative diseases affecting larger patient populations;
- the expansion of our modality agnostic product pipeline to other microglial targets beyond TREM2;
- the ability of our preclinical studies and clinical trials to demonstrate safety and efficacy of our product candidates, as well as the beneficial characteristics, therapeutic effects and other positive results;
- our estimates of the number of patients that we will enroll and our ability to initiate, recruit and enroll patients in and conduct and successfully complete our clinical trials at the pace that we project;
- the ability to identify research and efficiently discover and develop product candidates;
- the timing, scope and likelihood of regulatory filings and approvals, including timing of INDs and final FDA approval of our current product candidates or any future product candidates;
- the timing, scope or likelihood of foreign regulatory filings and approvals;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates and other product candidates we may develop, including the extensions of existing patent terms where available, the validity of intellectual property rights held by third parties, and our ability not to infringe, misappropriate or otherwise violate any third-party intellectual property rights;
- our ability to scale-up our manufacturing and processing approaches to appropriately address our anticipated commercial needs, which will require significant resources;
- the ability and willingness of our third-party strategic collaborators to continue research and development activities relating to our development candidates and product candidates;
- our ability to obtain funding for our operations necessary to complete further development and commercialization of our product candidates;
- our ability to commercialize our products, if approved;
- the pricing and reimbursement of our product candidates, if approved;
- the implementation of our business model, and strategic plans for our business, product candidates, and technology;
- estimates of our future expenses, revenues and capital requirements and our needs for additional financing;

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- future agreements with third parties in connection with the development and commercialization of product candidates and any other approved product;
- the size and growth potential of the markets for our product candidates and our ability to serve those markets;
- our financial performance;
- the rate and degree of market acceptance of our product candidates;
- regulatory developments in the United States and foreign countries;
- our ability to attract and retain key scientific or management personnel;
- our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately;
- our ability to produce our products or product candidates with advantages in turnaround times or manufacturing cost;
- the success of competing therapies that are or may become available;
- the impact of laws and regulations;
- our use of the proceeds from this offering;
- developments relating to our competitors and our industry;
- the effect of the COVID-19 pandemic, including mitigation efforts and economic effects, on any of the foregoing or other aspects of our business operations, including but not limited to a negative impact on enrollment in our ongoing clinical trial as well as any other impacts on our existing and future clinical trials or our preclinical studies; and
- other risks and uncertainties, including those listed under the caption “Risk Factors.”

In some cases, forward-looking statements can be identified by terminology such as “may,” “should,” “expects,” “intends,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “potential,” “continue,” or the negative of these terms or other comparable terminology. These statements are only predictions. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which are, in some cases, beyond our control and which could materially affect results. Factors that may cause actual results to differ materially from those implied or projected by forward-looking statements include, among other things, those listed under the section entitled “Risk Factors” and elsewhere in this prospectus. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual events or results may vary significantly from those implied or projected by the forward-looking statements. No forward-looking statement is a guarantee of future performance. You should read this prospectus and the documents that we reference in this prospectus and have filed with the SEC as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from any future results expressed or implied by these forward-looking statements.

While we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should therefore not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to

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be reliable, although they do not guarantee the accuracy or completeness of such information. We are responsible for all of the disclosure contained in this prospectus, and we believe that these sources are reliable; however, we have not independently verified the information contained in such publications.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to unduly rely upon these statements.

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**USE OF PROCEEDS**

We estimate that our net proceeds from the sale of shares of our common stock in this offering will be approximately \$ \_\_\_\_\_ million, or \$ \_\_\_\_\_ million if the underwriters exercise in full their option to purchase additional shares, assuming an initial public offering price of \$ \_\_\_\_\_ per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$ \_\_\_\_\_ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) our net proceeds from this offering by \$ \_\_\_\_\_ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each \$1.0 million share increase (decrease) in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) our net proceeds from this offering by \$ \_\_\_\_\_ million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purposes of this offering are to create a public market for our common stock and thereby facilitate future access to the public equity markets, increase our visibility in the marketplace and obtain additional capital. We currently intend to use the net proceeds from this offering, together with our existing cash, cash equivalents and marketable securities, for the following:

- approximately \$ \_\_\_\_\_ million to advance the development of VGL101 for the treatment of ALSP and other rare leukoencephalopathies and leukodystrophies, including the initiation of clinical trials, clinical research outsourcing and drug manufacturing;
- approximately \$ \_\_\_\_\_ million for the continued research of our novel, small molecule program focusing on treatments for common neurodegenerative diseases that are linked to microglial dysfunction with genetically defined AD as the initial indication;
- approximately \$ \_\_\_\_\_ million for the continued research and development of our development programs, including the expansion of our modality agnostic product pipeline to include other microglial targets; and
- the remainder for working capital and other general corporate purposes.

Based on our current plans, we believe that our existing cash and cash equivalents, together with the net proceeds from this offering, will be sufficient to enable us to fund our operating expenses and capital expenditure requirements at least through \_\_\_\_\_. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. We do not have any committed external source of funds.

Our expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above and we expect that we will require additional funds in order to fully accomplish the specified uses of the proceeds of this offering. We may also use a portion of the net proceeds to in-license, acquire, or invest in complementary businesses or technologies to continue to build our pipeline, research and development capabilities and our intellectual property position, although we currently have no agreements, commitments, or understandings with respect to any such transaction.

Due to the many inherent uncertainties in the development of our product candidates, the amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our research and development, the timing of patient enrollment and evolving regulatory requirements, the

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timing and success of preclinical studies, our ongoing clinical studies or clinical studies we may commence in the future, the timing of regulatory submissions, any strategic alliances that we may enter into with third parties for our product candidates or strategic opportunities that become available to us, and any unforeseen cash needs.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation instruments, including short-term and long-term interest-bearing instruments, investment-grade securities, and direct or guaranteed obligations of the U.S. government. We cannot predict whether the proceeds invested will yield a favorable return. Our management will retain broad discretion in the application of the net proceeds we receive from our initial public offering, and investors will be relying on the judgment of our management regarding the application of the net proceeds.

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**DIVIDEND POLICY**

We currently intend to retain all available funds and any future earnings to fund the growth and development of our business. We do not intend to pay cash dividends to our stockholders in the foreseeable future. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant.



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**CAPITALIZATION**

The following table sets forth our cash and cash equivalents and our capitalization as of June 30, 2021:

- on an actual basis;
- on a pro forma basis to give effect to (i) our sale of 25,657,096 shares of Series B convertible preferred stock in August 2021 and the conversion of such shares into an aggregate of 25,657,096 shares of common stock upon the closing of this offering, (ii) the automatic conversion of all 54,179,688 outstanding shares of our Series A and Series B convertible preferred stock in the aggregate into the equivalent number of shares of common stock prior to the completion of this offering and (iii) the filing and effectiveness of our third amended and restated certificate of incorporation prior to the completion of this offering, in each case as if such events had occurred on June 30, 2021; and
- on a pro forma as adjusted basis to give further effect to the issuance and sale of \_\_\_\_\_ shares of common stock in this offering at an assumed initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma as adjusted information below is illustrative only, and our capitalization following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read the information in this table together with our consolidated financial statements and the related notes included elsewhere in this prospectus and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” section of this prospectus.

	<u>As of June 30, 2021</u>		
	<u>Actual</u>	<u>Pro forma</u>	<u>Pro forma as adjusted(1)</u>
	<u>(in thousands, except share and per share amounts)</u>		
Cash and cash equivalents	\$ 33,059	\$	\$
Series A convertible preferred stock, \$0.0001 par value; 28,522,592 shares authorized; 28,522,592 issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted			72,327
Series B convertible preferred stock, \$0.0001 par value; 25,657,096 shares authorized; 25,657,096 issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted			
Stockholders’ equity (deficit):			
Preferred stock, \$0.0001 par value; no shares authorized, issued or outstanding, actual; shares authorized and no shares issued or outstanding, pro forma and pro forma as adjusted			
Common stock, \$0.0001 par value; 72,000,000 shares authorized, 4,850,000 shares issued and outstanding, actual; _____ shares authorized, _____ shares issued and outstanding, pro forma; shares authorized, _____ shares issued and outstanding, pro forma as adjusted			1
Additional paid-in capital			1,029
Accumulated deficit	(48,104)		
<b>Total stockholders’ equity (deficit)</b>	<u>(47,074)</u>		
<b>Total capitalization</b>	<u>\$ 25,253</u>	<u>\$</u>	<u>\$</u>

(1) Each \$1.00 increase (decrease) in the assumed initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the

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pro forma as adjusted amount of each of cash and cash equivalents, total stockholders' equity and total capitalization by \$ \_\_\_\_\_ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each increase (decrease) of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, total stockholders' equity and total capitalization by \$ \_\_\_\_\_ million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The number of shares of our common stock in the table above is based on 58,969,271 shares of our common stock (which includes 789,583 shares of restricted common stock) outstanding as of June 30, 2021, after giving effect to (i) our sale of 25,657,096 shares of Series B convertible preferred stock in August 2021 for gross proceeds of approximately \$90.0 million and (ii) the automatic conversion of all 54,179,688 outstanding shares of our Series A and Series B convertible preferred stock in the aggregate into the equivalent number of shares of our common stock immediately prior to the completion of this offering, and excludes:

- 4,986,551 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2021 under our 2020 Equity Incentive Plan, or 2020 Plan, at a weighted average exercise price of \$0.89 per share;
- 3,115,115 shares of our common stock issuable upon the exercise of stock options granted after June 30, 2021 pursuant to our 2020 Plan at a weighted average exercise price of \$2.17 per share;
- 902,730 shares of common stock reserved for future issuance as of June 30, 2021 under the 2020 Plan, which will cease to be available for issuance at the time that our 2021 Stock Option and Incentive Plan, or the 2021 Stock Plan, becomes effective;
- 3,500,000 shares of additional common stock reserved for future issuance in August 2021 under the 2020 Plan, which will cease to be available for issuance at the time that our 2021 Stock Plan becomes effective;
- \_\_\_\_\_ shares of common stock reserved for future issuance under our 2021 Employee Stock Purchase Plan, or ESPP, which will become effective in connection with the completion of this offering; and
- \_\_\_\_\_ shares of our common stock that will become available for future issuance under our 2021 Plan, which will become effective in connection with the completion of this offering.

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If you invest in our common stock in this offering, your ownership interest will be diluted immediately to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering.

Our historical net tangible book (deficit) as of June 30, 2021 was (\$47.1) million, or \$(9.71) per share of our common stock. Our historical net tangible book deficit per share is the amount of our total tangible assets less our total liabilities and the carrying values of our convertible preferred stock, which is not included within stockholders' deficit. Our historical net tangible book deficit per share represents historical net tangible book deficit divided by the 4,850,000 shares of our common stock outstanding as of June 30, 2021.

Our pro forma net tangible book value as of June 30, 2021 was \$ \_\_\_\_\_ million, or \$ \_\_\_\_\_ per share of our common stock. Pro forma net tangible book value represents the amount of our total tangible assets less our total liabilities, after giving effect to (i) our sale of 25,657,096 shares of Series B convertible preferred stock in August 2021 and the conversion of such shares into an aggregate of 25,657,096 shares of common stock upon the closing of this offering, (ii) the automatic conversion of all 54,179,688 outstanding shares of our Series A and Series B convertible preferred stock in the aggregate into the equivalent number of shares of common stock prior to the completion of this offering, (iii) the filing and effectiveness of our third amended and restated certificate of incorporation and amended and restated bylaws prior to the completion of this offering, in each case as if such events had occurred on June 30, 2021. Pro forma net tangible book value per share represents pro forma net tangible book value divided by the total number of shares outstanding as of June 30, 2021, after giving effect to the pro forma adjustments described above.

After giving further effect to our issuance and sale of shares of our common stock in this offering at an assumed initial public offering price of \$ \_\_\_\_\_ per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of June 30, 2021 would have been \$ \_\_\_\_\_ million, or \$ \_\_\_\_\_ per share. This amount represents an immediate increase in pro forma as adjusted net tangible book value per share of \$ \_\_\_\_\_ to our existing stockholders and immediate dilution of \$ \_\_\_\_\_ in pro forma as adjusted net tangible book value per share to new investors purchasing common stock in this offering.

Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the initial public offering price per share paid by new investors. The following table illustrates this dilution on a per share basis (without giving effect to any exercise by the underwriters of their option to purchase additional shares):

Assumed initial public offering price per share	\$ _____
Historical net tangible book value (deficit) per share as of June 30, 2021	\$(9.71)
Increase per share attributable to the pro forma adjustments described above	_____
Pro forma net tangible book value per share as of June 30, 2021	_____
Increase in pro forma net tangible book value per share attributable to new investors participating in this offering	_____
Pro forma as adjusted net tangible book value per share after this offering	_____
Dilution per share to new investors purchasing common stock in this offering	\$ _____

The dilution information discussed above is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. Each \$1.00 increase (decrease) in the assumed initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) our pro forma as adjusted net tangible book value per

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share after this offering by \$ \_\_\_\_\_ and dilution per share to new investors purchasing common stock in this offering by \$ \_\_\_\_\_, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each increase of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase our pro forma as adjusted net tangible book value per share after this offering by \$ \_\_\_\_\_ and decrease dilution per share to new investors purchasing common stock in this offering by \$ \_\_\_\_\_, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each decrease of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would decrease our pro forma as adjusted net tangible book value per share after this offering by \$ \_\_\_\_\_ and increase dilution per share to new investors purchasing common stock in this offering by \$ \_\_\_\_\_, assuming no change in the assumed initial public offering price and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise their option to purchase additional shares in full, our pro forma as adjusted net tangible book value per share after this offering would be \$ \_\_\_\_\_, representing an immediate increase in pro forma as adjusted net tangible book value per share of \$ \_\_\_\_\_ to existing stockholders and immediate dilution in pro forma as adjusted net tangible book value per share of \$ \_\_\_\_\_ to new investors purchasing common stock in this offering, based on the assumed initial public offering price of \$ \_\_\_\_\_ per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The following table summarizes on the pro forma as adjusted basis described above, the total number of shares of common stock purchased from us on an as converted to common stock basis, the total consideration paid or to be paid, and the average price per share paid or to be paid by existing stockholders and by new investors in this offering at an assumed initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. As the table shows, new investors purchasing common stock in this offering will pay an average price per share substantially higher than our existing stockholders paid.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percentage	Amount	Percentage	\$
Existing stockholders		%	\$	%	\$
New investors					
<b>Total</b>		<b>100%</b>	<b>\$</b>	<b>100%</b>	

The table above assumes no exercise of the underwriters' option to purchase additional shares in this offering. If the underwriters' option to purchase additional shares is exercised in full, the number of shares of our common stock held by existing stockholders would be reduced to \_\_\_\_\_ % of the total number of shares of our common stock outstanding after this offering, and the number of shares of common stock held by new investors purchasing common stock in this offering would be increased to \_\_\_\_\_ % of the total number of shares of our common stock outstanding after this offering.

The discussion and tables above are based on 58,969,271 shares of our common stock (which includes 789,583 shares of restricted common stock) outstanding as of June 30, 2021, after giving effect to (i) our sale of 25,657,096 shares of Series B convertible preferred stock in August 2021 for gross proceeds of approximately \$90.0 million and (ii) the automatic conversion of all 54,179,688 outstanding shares of our Series A and Series B convertible preferred stock in the aggregate into the equivalent number of shares of our common stock immediately prior to the completion of this offering, and excludes:

- 4,986,551 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2021 under our 2020 Equity Incentive Plan, or 2020 Plan, at a weighted average exercise price of \$0.89 per share;

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- 3,115,115 shares of our common stock issuable upon the exercise of stock options granted after June 30, 2021 pursuant to our 2020 Plan at a weighted average exercise price of \$2.17 per share;
- 902,730 shares of common stock reserved for future issuance as of June 30, 2021 under the 2020 Plan, which will cease to be available for issuance at the time that our 2021 Stock Option and Incentive Plan, or the 2021 Stock Plan, becomes effective;
- 3,500,000 shares of additional common stock reserved for future issuance in August 2021 under the 2020 Plan, which will cease to be available for issuance at the time that our 2021 Stock Plan becomes effective;
- shares of common stock reserved for future issuance under our 2021 Employee Stock Purchase Plan, or ESPP, which will become effective in connection with the completion of this offering; and
- shares of our common stock that will become available for future issuance under our 2021 Plan, which will become effective in connection with the completion of this offering.

To the extent that new stock options are issued or any outstanding options are exercised, or we issue additional shares of common stock in the future, there will be further dilution to new investors. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION  
AND RESULTS OF OPERATIONS**

*You should read the following discussion and analysis of our financial condition and results of operations together with the "Selected Consolidated Financial Data" section of this prospectus and our consolidated financial statements and related notes included elsewhere in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing includes forward-looking statements that involve risks and uncertainties. Many factors, including those factors set forth in the "Risk Factors" section of this prospectus, may materially and adversely affect our actual results, which may differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.*

**Overview**

We are a microglia-focused company dedicated to improving the lives of patients, caregivers and families affected by rare and common neurodegenerative diseases by pursuing the development of disease-modifying therapeutics to restore the vigilance of microglia. Microglia are the sentinel immune cells of the brain and play a critical role in maintaining central nervous system (CNS) health and responding to damage caused by disease. Leveraging recent research implicating microglial dysfunction in neurodegenerative diseases, we utilize a precision medicine approach to develop a pipeline of therapeutic candidates, initially for genetically defined patient subpopulations, that we believe will activate and restore microglial function.

Since our inception, we have devoted substantially all of our efforts to organizing and staffing our company, research and development activities, business planning, raising capital, building our intellectual property portfolio and providing general and administrative support for these operations. To date, we have funded our operations primarily through proceeds from the sale of shares of our convertible preferred stock and a Simple Agreement for Future Equity, or SAFE. As of June 30, 2021, we had \$33.1 million of cash and cash equivalents. As of June 30, 2021, we raised aggregate gross proceeds of \$50.0 million from the sale of equity securities as follows:

- During the period from June 22, 2020 (inception) to December 31, 2020, we raised \$5.0 million gross proceeds from the SAFE which was subsequently converted to 1,963,093 shares of Series A convertible preferred stock and \$25.0 million gross proceeds from the issuance of 9,815,467 shares of Series A convertible preferred stock at a purchase price of \$2.547 per share. Costs associated with these issuances were approximately \$0.2 million.
- During the period from June 22, 2020 (inception) to June 30, 2020, we did not have any financing activities.
- During the six months ended June 30, 2021, we raised \$20.0 million gross proceeds from the issuance of 7,852,373 shares of Series A convertible preferred stock at a purchase price of \$2.547 per share. Costs associated with this issuance were approximately \$0.1 million.

Subsequently, on August 13, 2021, we issued 25,657,096 shares of our Series B convertible preferred stock at \$3.5078 per share, for which we received gross proceeds of \$90.0 million. Costs associated with this issuance were approximately \$0.2 million.

We have incurred significant operating losses since the commencement of our operations. Our ability to generate product revenue sufficient to achieve profitability will depend heavily on the successful development and eventual commercialization of one or more of our current therapeutic candidates or any future therapeutic candidates. Our accumulated deficit was \$28.5 million at December 31, 2020 and \$48.1 million at June 30, 2021, respectively. We expect to continue to incur significant losses for the foreseeable future as we advance our

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current and future therapeutic candidates through preclinical and clinical development, continue to build our operations and transition to operating as a public company. Without additional funding, we believe that we will not have sufficient funds to meet our obligations within the next twelve months from the date of issuance of our consolidated financial statements. These factors raise substantial doubt about our ability to continue as a going concern.

Based on our current operating plan, we expect the net proceeds from this offering, together with our existing cash, will be sufficient to fund our planned operating expenses and capital expenditure requirements through .

Our net losses may fluctuate significantly from period to period, depending on the timing of expenditures on our research and development activities. Our primary use of cash is to fund operating expenses, which consist primarily of research and development and general and administrative expenses. The timing of payment of these expenses has an effect on cash used to fund operating expenses, as reflected in the change in our outstanding accounts payable and accrued expenses.

We expect to continue to incur net operating losses for at least the next several years, and we expect our research and development expenses, general and administrative expenses, and capital expenditures will continue to increase. We expect our expenses and capital requirements will increase significantly in connection with our ongoing activities as we:

- continue our ongoing and planned research and development of our VGL101 and small molecule Trigger Receptor Expressed on Myeloid cells 2, or TREM2, agonist program;
- initiate preclinical studies and clinical trials for any additional therapeutic candidates that we may pursue in the future;
- expand our product pipeline based on TREM2 and other microglia targets across multiple therapeutic modalities, through internal discovery and development, or through strategic collaborations or alliances with academic organizations, pharmaceutical or biotechnology companies;
- seek regulatory approvals for any therapeutic candidates that successfully complete clinical trials;
- invest in capital equipment in order to expand our research and development activities;
- attract, hire and retain additional clinical, scientific, quality control, and manufacturing management and administrative personnel;
- add clinical, operational, financial and management information systems and personnel, including personnel to support our product development;
- develop, maintain, expand, protect and enforce our intellectual property portfolio, including patents, trade secrets and know-how;
- acquire or in-license other therapeutic candidates and technologies;
- expand our operations in the United States and to other geographies;
- incur additional legal, accounting, investor relations and other general and administrative expenses associated with operating as a public company; and
- establish a sales, marketing and distribution infrastructure, either ourselves or in partnership with others, to commercialize any therapeutic candidates, if approved.

We will not generate revenue from product sales unless and until we successfully complete clinical development and obtain regulatory approval for one or more of our therapeutic candidates. If we obtain regulatory approval for any of our therapeutic candidates, we expect to incur significant expenses related to

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product sales, marketing and distribution to the extent that such sales, marketing and distribution are not the responsibility of potential collaborators. We may also require additional capital to pursue in-licenses or acquisitions of other drug candidates. Further, following the completion of this offering we expect to incur additional costs associated with operating as a public company.

We also expect to increase the size of our administrative function to support the growth of our business. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing of our clinical trials and our expenses related to other research and development activities.

As a result, we will require substantial additional funding to develop our therapeutic candidates and support our continuing operations. Until such time that we can generate significant revenue from product sales or other sources, we expect to finance our operations through the sale of equity, debt financings or other capital sources, which could include proceeds from potential collaborations, strategic partnerships or marketing, distribution, licensing or other strategic arrangements with third parties. We may be unable to raise additional funds or to enter into such agreements or arrangements on favorable terms, or at all. Our ability to raise additional funds may be adversely impacted by potential worsening global economic conditions and the recent disruptions to, and volatility in, the credit and financial markets in the United States and worldwide resulting from the ongoing COVID-19 pandemic and otherwise. If we fail to raise capital or enter into such agreements as, and when, needed, we may have to significantly delay, scale back or discontinue the development or commercialization of our therapeutic candidates or grant rights to develop and market therapeutic candidates that we would otherwise prefer to develop and market ourselves.

Our failure to obtain sufficient funds with acceptable terms could have a material adverse effect on our business, results of operations or financial condition, including requiring us to have to delay, reduce or eliminate our product development or future commercialization efforts. Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to accurately predict the amount of increased expenses or timing, or if we will be able to achieve or maintain profitability. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce or terminate our operations. We cannot provide assurance that we will ever be profitable or generate positive cash flow from operating activities. Without giving effect to the anticipated net proceeds from this offering, as of October 8, 2021, we expect that our existing cash and cash equivalents, including the \$90.0 million of gross proceeds we received from sales of our Series B preferred stock in August 2021, will be sufficient to fund our operating expenses and capital expenditure requirements into the fourth quarter of 2022. Beyond that point, we will need to raise additional capital to finance our operations, which cannot be assured. We concluded as of October 8, 2021, the issuance date of our consolidated financial statements for the period from June 22, 2020 (inception) to December 31, 2020 and of our interim consolidated financial statements for the six months ended June 30, 2021, that this circumstance raised substantial doubt about our ability to continue as a going concern within one year of the issuance date of those consolidated financial statements. See Note 1 to our consolidated financial statements included elsewhere in this prospectus for additional information on our assessment.

### ***Impact of COVID-19 on Our Operations***

In March 2020, the World Health Organization declared the outbreak of COVID-19 a global pandemic. We are subject to a number of risks associated with the COVID-19 global pandemic, including potential delays associated with our ongoing preclinical studies and anticipated clinical trials. COVID-19 may have an adverse impact on our operations, supply chains and distribution systems or those of our third-party vendors and collaborators, and increase expenses, including as a result of impacts associated with preventive and precautionary measures that are being taken, such as restrictions on travel and border crossings, quarantine policies and social distancing. We and our third-party vendors and collaborators may experience disruptions in supply of items that are essential for our research and development activities. In addition, the spread of COVID-19 has disrupted global healthcare and healthcare regulatory systems which could divert healthcare



resources away from, or materially delay, FDA approval and approval by other health authorities worldwide with respect to our therapeutic candidates. Furthermore, our anticipated clinical trials may be negatively affected by the COVID-19 outbreak. Site initiation, patient enrollment and patient follow-up visits may be delayed, for example, due to prioritization of hospital resources toward the COVID-19 outbreak, travel restrictions, the inability to access sites for initiation and monitoring, and difficulties recruiting or retaining patients in our planned clinical trials. We cannot at this time predict the specific extent, duration, or full impact that the COVID-19 outbreak will have on our financial condition and operations. If we do not successfully commercialize any of our therapeutic candidates, we will be unable to generate product revenue or achieve profitability.

#### ***Exclusive License Agreement with Amgen Inc.***

In July 2020, we entered into an exclusive license agreement, or Amgen Agreement, with Amgen Inc., or Amgen, pursuant to which we have been granted an exclusive, royalty-bearing license to certain intellectual property rights owned or controlled by Amgen, to commercially develop, manufacture, use, distribute and sell therapeutic products containing compounds that bind to TREM2. In addition, we are required to reimburse Amgen for amounts it paid to its contract manufacturers on the Company's behalf. See the section entitled "Business Section—Exclusive License Agreement with Amgen Inc." and Note 12 to the consolidated financial statements appearing elsewhere in this prospectus for more information on the Amgen Agreement.

As initial consideration for the license, we paid an upfront payment of \$0.5 million and also recognized an obligation to issue shares of Series A convertible preferred stock with an antidilution provision, or the Related Party Antidilution Obligation. As of August 31, 2021, Amgen owned approximately 15.08% of our outstanding shares of capital stock. As additional consideration for the license, we are required to pay Amgen up to \$80.0 million in the aggregate upon the achievement of specified regulatory milestones for the first monoclonal antibody TREM2 agonist (mAb) product and the first small molecule TREM2 agonist product and aggregate milestone payments of up to \$350.0 million upon the achievement of specific commercial milestones across all mAb products and small molecule products. No regulatory or commercial milestones have been achieved to date under the Amgen Agreement. We are also required to pay tiered royalties of low to mid single-digit percentages on annual net sales of the products covered by the license. In the event that the exploitation of a product is not covered by a valid claim within the licensed patent rights, then the royalty rate with respect to the net sales shall be subject to a customary reduction by a certain percentage. The royalty term will terminate on a country-by-country basis on the later of (i) the expiration date of the last valid claim within the licensed patent rights and (ii) the tenth (10<sup>th</sup>) anniversary of the first commercial sale of such product in such country.

In connection with the license agreement, Amgen entered into certain stockholder agreements related to this investment. See "Certain relationship and related party transactions."

#### **Components of Our Results of Operations**

##### ***Operating Expenses***

Our operating expenses since inception have consisted solely of research and development expenses and general and administrative expenses.

##### ***Related Party Acquired In-process Research and Development***

Related party acquired in-process research and development, or IPR&D, expenses consist primarily of the upfront costs to acquire the IPR&D assets at inception of the Amgen Agreement and the initial recognition of the fair value of the Related Party Antidilution Obligation. Upfront and milestone payments are accrued for and expensed as IPR&D expense when the achievement of the milestone is probable up to the point of regulatory approval. Milestone payments made upon regulatory approval will be capitalized and amortized over the

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remaining useful life of the related product. We did not incur related party IPR&D expenses during the period from June 22, 2020 (inception) to June 30, 2020 and the six months ended June 30, 2021.

*Research and Development*

Research and development expenses consist of costs incurred for our research activities, including our discovery efforts and the development of our programs. These expenses include:

- employee related expenses, including salaries, related benefits, and stock-based compensation expense for employees engaged in research and development functions;
- expenses incurred in connection with the discovery and preclinical development of our VGL101 and small molecule TREM2 agonist program;
- expenses incurred under agreements with third parties, such as consultants, clinical investigators, contractors and contract research organizations, or CROs, that assist with (i) the preclinical studies of VGL101 and (ii) identification of potential therapeutic candidates in our small molecule TREM2 agonist program;
- the cost of developing and scaling our manufacturing process and manufacturing therapeutic candidates for use in our research and preclinical studies, including under agreements with third parties, such as consultants, contractors, and contract manufacturing organizations, or CMOs;
- payments made under our licensing agreement with a related party; and
- other expenses incurred as a result of research and development activities.

Research and development expenses account for a significant portion of our operating expenses. We expense research and development costs as incurred. Nonrefundable advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made. When third-party service providers' billing terms do not coincide with our period-end, we are required to make estimates of our obligations to those third parties incurred in a given accounting period and record accruals at the end of the period. We base these estimates on our knowledge of the research and development programs, services performed for the period, past history for related activities and the expected duration of the third-party service contract, where applicable. If timelines or contracts are modified based upon changes in the scope of work to be performed, we modify our estimates of accrued expenses accordingly on a prospective basis. Actual results could differ from our estimates.

Our direct research and development expenses are tracked on a program-by-program basis and consist primarily of external costs, such as fees paid to CROs, CMOs, central laboratories and outside consultants in connection with our research and discovery, preclinical development, process development, manufacturing, clinical development, regulatory and quality activities. We do not allocate employee costs or facility expenses, including depreciation or other indirect costs, to specific programs because these costs are deployed across multiple programs. Our internal resources conduct our research and discovery activities and manage our preclinical development and process development, manufacturing and clinical development activities.

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The table below summarizes our research and development expenses incurred by program:

	Period from June 22, 2020 (Inception) to December 31, 2020	Period from June 22, 2020 (Inception) to June 30, 2020	Six Months Ended June 30, 2021
	(\$ in thousands)		
Direct, external research and development expenses by program:			
VGL101	\$ 974	\$ —	\$ 8,302
Small molecule TREM2	1,087	—	2,359
Unallocated research and development expenses:			
External costs and other	946	197	1,650
Facilities, personnel related, and other	1,507	—	3,090
Total research and development expenses	<u>\$ 4,514</u>	<u>\$ 197</u>	<u>\$ 15,401</u>

Research and development activities are central to our business model. Therapeutic candidates in later stages of clinical development generally have higher development costs than those in earlier stages, primarily due to the increased size and duration of later-stage clinical trials. As a result, we expect that our research and development expenses will increase substantially over the next several years as we expect to (i) advance VGL 101 and our small molecule TREM2 agonist program initial clinical trials, (ii) develop VGL101 for other indications, including other rare leukodystrophies, and (iii) expand our modality agnostic product pipeline to other microglia targets.

The successful development and commercialization of our therapeutic candidates is highly uncertain. At this time, we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the preclinical and clinical development of any of our therapeutic candidates. This uncertainty is due to the numerous risks and uncertainties associated with product development and commercialization, including the uncertainty of:

- the timing, design and successful completion of preclinical studies and clinical development activities;
- the sufficiency of our financial and other resources to complete the necessary preclinical studies and clinical trials;
- effective INDs or comparable foreign applications that allow commencement of our planned clinical trials or future clinical trials for any therapeutic candidates we may develop;
- successful enrollment and completion of clinical trials, including under the FDA's Good Clinical Practices, Good Laboratory Practices, and any additional regulatory requirements from foreign regulatory authorities;
- positive results from our future clinical trials that support a finding of safety and effectiveness and an acceptable risk-benefit profile in the intended populations;
- the receipt of regulatory marketing approvals from applicable regulatory authorities;
- the establishment of arrangements with third-party manufacturers for clinical supply and, where applicable, commercial manufacturing capabilities;
- the establishment, maintenance, defense and enforcement of patent, trademark, trade secret and other intellectual property protection or regulatory exclusivity for any therapeutic candidates we may develop;
- patient recruitment and enrollment;
- commercial launch of any therapeutic candidates we may develop, if approved, whether alone or in collaboration with others;

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- acceptance of the benefits and use of our therapeutic candidates we may develop, including method of administration, if and when approved, by patients, the medical community and third-party payors;
- our ability to compete effectively with other therapies and treatment options;
- maintenance of a continued acceptable safety, tolerability and efficacy profile of any therapeutic candidates we may develop following approval;
- establishment and maintenance of healthcare coverage and adequate reimbursement by payors;
- our ability to establish new licensing or collaboration arrangements;
- the performance of our future collaborators, if any;
- development and timely delivery of commercial-grade drug formulations that can be used in our planned clinical trials and, if approved, for commercial launch;
- obtaining, maintaining, defending and enforcing patent claims and other intellectual property rights;
- launching commercial sales of our therapeutic candidates, if approved, whether alone or in collaboration with others; and
- maintaining a continued acceptable safety profile of the therapeutic candidates following approval.

Any changes in the outcome of any of these variables with respect to the development of our therapeutic candidates in preclinical and clinical development could mean a significant change in the costs and timing associated with the development of these therapeutic candidates. For example, if the FDA or another regulatory authority were to delay our planned start of clinical trials or require us to conduct clinical trials or other testing beyond those that we currently expect, or if we experience significant delays in enrollment in any of our planned clinical trials, we could be required to expend significant additional financial resources and time to complete clinical development of that therapeutic candidate. We may never obtain regulatory approval for any of our therapeutic candidates, and, even if we do, drug commercialization takes several years and millions of dollars in development costs.

#### *General and Administrative*

General and administrative expenses consist primarily of personnel expenses, including salaries, benefits and stock-based compensation expense, for personnel in executive, accounting, business development, legal, human resources and administrative functions. General and administrative expenses also include corporate facility costs not otherwise included in research and development expenses, depreciation and other expenses, which include direct or allocated expenses for rent and maintenance of facilities and insurance, not otherwise included in research and development expenses, as well as professional fees for legal, consulting, investor and public relations, accounting and audit services.

We expect that our general and administrative expenses will increase in the foreseeable future as we increase our headcount to support the continued research and development of our programs and the growth of our business. We also anticipate incurring additional expenses associated with operating as a public company, including increased expenses related to audit, legal, regulatory, compliance, director and officer insurance, investor and public relations and tax-related services associated with maintaining compliance with the rules and regulations of the Securities and Exchange Commission, or SEC, and standards applicable to companies listed on a national securities exchange, additional insurance expenses, investor relations activities and other administrative and professional services.

#### ***Other Income (Expense)***

##### *Change in Fair Value of Related Party Antidilution Obligation*

Pursuant to the Amgen Agreement, we agreed to issue Amgen equity in an amount equal to 25% of our capital stock on a fully diluted basis until such time as we have raised an aggregate of \$45.0 million in net cash

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proceeds from financing activities relating to dilutive transactions including the Related Party Antidilution Obligation. In September 2020, we completed the first closing pursuant to the Series A Convertible Preferred Stock Purchase Agreement, and as a result issued Amgen 6,928,566 shares of Series A convertible preferred stock such that Amgen's ownership represented 25% of the post-closing capitalization on a fully diluted basis. The Related Party Antidilution Obligation was separately exercisable from the Amgen Agreement and was classified as a liability and recorded at fair value in the consolidated balance sheet with a corresponding charge to research and development at inception of the license agreement in July of 2020. The Related Party Antidilution Obligation was remeasured at fair value at each reporting period, with changes in fair value recorded in change in fair value of Related Party Antidilution Obligation in the consolidated statement of operations and comprehensive loss. In September 2020, the Related Party Antidilution Obligation was partially settled through the issuance of 6,928,566 shares of Series A convertible preferred stock with a fair value of \$17.5 million. In May 2021, we settled the remaining Related Party Antidilution Obligation in full with the second closing pursuant to the Series A Convertible Preferred Stock Purchase Agreement. Amgen received an additional 1,963,093 shares of Series A convertible preferred stock with a fair value of \$5.1 million.

### *Change in Fair Value of Series A Preferred Stock Tranche Obligation*

In September 2020, we entered into the Series A Convertible Preferred Stock Purchase Agreement and issued 9,815,467 shares of Series A convertible preferred stock at a purchase price of \$2.547 per share, for gross cash proceeds of \$25.0 million. The gross proceeds were offset by \$0.2 million of issuance costs and \$0.2 million related to the Series A Preferred Tranche Obligation, discussed below. Concurrently with this issuance, the SAFE notes converted to 1,963,093 shares of Series A convertible preferred stock. As part of the September 2020 Series A Convertible Preferred Stock Purchase Agreement, the investors were contingently obligated to purchase 7,852,373 additional shares of Series A convertible preferred stock at \$2.547 per share upon the satisfaction of specified research and development milestones, collectively, the Series A Preferred Stock Tranche Obligation. The Series A Preferred Stock Tranche Obligation was legally detachable and separately exercisable from the Series A convertible preferred stock. As such, we allocated the proceeds from the September 2020 issuance between the Series A Preferred Stock Tranche Obligation and the Series A convertible preferred stock. As the Series A convertible preferred stock is redeemable upon a deemed liquidation event at the election of the holder controlled Board, and therefore outside of the control of our company, the Series A Preferred Stock Tranche Obligation was classified as a liability and recorded at its fair value. The Series A Preferred Stock Tranche Obligation was remeasured at fair value at each reporting period, with changes in fair value recorded in change in fair value of Series A Preferred Stock Tranche Obligation in the consolidated statement of operations and comprehensive loss.

### *Interest Income*

Interest income consists of interest earned from our cash and cash equivalents. We expect our interest income will increase slightly as we invest the cash received from our sales of Series B preferred stock in August 2021 and the net proceeds from this offering. Interest income was immaterial during the period from June 22, 2020 (inception) to December 31, 2020, the period from June 22, 2020 (inception) to June 30, 2020 and the six months ended June 30, 2021.

### *Other Expense, net*

Other expense, net includes gains and losses from the remeasurement of foreign currency transactions into our functional currency. Other expense, net was immaterial during the period from June 22, 2020 (inception) to December 31, 2020, the period from June 22, 2020 (inception) to June 30, 2020 and the six months ended June 30, 2021.

### *Income Taxes*

Since our inception, we have not recorded any income tax benefits for the net losses we have incurred in each year or for our research and development tax credits, as we believe, based upon the weight of available

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evidence, that it is more likely than not that all of our net operating loss, or NOL, carryforwards and tax credits will be realized. As of December 31, 2020, we had federal NOL carryforwards of approximately \$5.3 million and state NOL carryforwards of approximately \$5.2 million which may be available to offset future taxable income and begin to expire in 2036. The total federal NOL of \$5.3 million are not subject to expiration. As of December 31, 2020, we also had state tax research and development credit carryforwards of approximately \$78 thousand to offset future tax liabilities, which begin to expire in 2029. As of December 31, 2020, we had no federal tax research and development credit carryforwards. We have recorded a full valuation allowance against our net deferred tax assets at December 31, 2020. As of December 31, 2020, we had no unrecognized tax benefits.

**Results of Operations****Period from June 22, 2020 (inception) to December 31, 2020**

The following table summarizes our results of operations for the period from June 22, 2020 (inception) to December 31, 2020:

	<b>Period from June 22, 2020 (Inception) to December 31, 2020 (\$ in thousands)</b>
Operating expenses:	
Related party acquired in-process research and development	\$ 20,923
Research and development	4,514
General and administrative	1,777
<b>Total operating expenses</b>	<b>27,214</b>
Loss from operations	(27,214)
Other income (expense):	
Change in fair value of the related party antidilution obligation	(1,307)
Change in fair value of Series A preferred stock tranche obligation	(24)
Interest income	—
Other expense, net	(1)
Total other expense, net	(1,332)
<b>Net loss and comprehensive loss</b>	<b>\$ (28,546)</b>

The description of material changes from period to period required by Item 303 of Regulation S-K cannot be presented as no company-related activities were performed by any party before our company was formed on June 22, 2020 and there are no comparative earlier periods for purposes of this analysis. Accordingly, the following discussion presents the components of our expenses for the periods presented.

*Related Party Acquired In-process Research and Development Expenses*

Related party acquired IPR&D expenses were \$20.9 million for the period from June 22, 2020 (inception) to December 31, 2020 and consisted of the costs to acquire the IPR&D assets at inception of the Amgen Agreement, including (i) \$20.4 million initial recognition of a Related Party Antidilution Obligation that obligates the Company to issue shares of the Series A convertible preferred stock equal to 25% of our capital stock until we have raised \$45.0 million in net cash proceeds from equity financings and (ii) the upfront cash consideration for the license arrangement of \$0.5 million.

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### *Research and Development Expenses*

Research and development expenses were \$4.5 million for the period from June 22, 2020 (inception) to December 31, 2020 and consisted primarily of the following:

- \$1.0 million of VGL101 program expenses;
- \$1.1 million of small molecule TREM2 agonist program expenses;
- \$0.9 million of external costs and other expenses; and
- \$1.5 million of facilities, personnel-related and other expenses, of which \$1.4 million related to personnel-related costs, including salaries, bonuses, and other compensation-related costs, including stock-based compensation of \$0.1 million

### *General and Administrative Expenses*

General and administrative expenses were \$1.8 million for the period from June 22, 2020 (inception) to December 31, 2020 and consisted primarily of the following:

- \$0.8 million of personnel-related costs, including salaries, bonuses, and other compensation-related costs, including stock-based compensation of \$0.2 million;
- \$0.7 million of professional fees, including legal, accounting and other expenses; and
- \$0.3 million of other general and administrative expenses

### *Change in Fair Value of Related Party Antidilution Obligation*

The change in fair value of Related Party Antidilution Obligation was \$1.3 million for the period from June 22, 2020 (inception) to December 31, 2020 and related to the remeasurement to fair value of the Related Party Antidilution Obligation at December 31, 2020.

### *Change in Fair Value of Series A Preferred Stock Tranche Obligation*

The change in fair value of Series A Preferred Stock Tranche Obligation was \$24 thousand for the period from June 22, 2020 (inception) to December 31, 2020 and related to the remeasurement to fair value of the Series A Preferred Stock Tranche Obligation at December 31, 2020.

**FOIA Confidential Treatment Requested****Period from June 22, 2020 (inception) to June 30, 2020 and Six Months Ended June 30, 2021**

The following table summarizes our results of operations for the period from June 22, 2020 (inception) to June 30, 2020 and the six months ended June 30, 2021:

	<b>Period from June 22, 2020 (Inception) to June 30, 2020</b>	<b>Six Months Ended June 30, 2021</b>
	(\$ in thousands)	
Operating expenses:		
Research and development	\$ 197	\$ 15,401
General and administrative	184	3,293
Total operating expenses	381	18,694
Loss from operations	(381)	(18,694)
Other income (expense):		
Change in fair value of the related party antidilution obligation	—	(836)
Change in fair value of Series A preferred stock tranche obligation	—	(28)
Interest income	—	3
Other expense, net	—	(3)
Total other expense, net	—	(864)
Net loss and comprehensive loss	<u>\$ (381)</u>	<u>\$ (19,558)</u>

*Research and Development Expenses*

Research and development expenses were \$0.2 million for the period from June 22, 2020 (inception) to June 30, 2020 and were primarily comprised of consulting fees for our research and development activities.

Research and development expenses were \$15.4 million for the six months ended June 30, 2021 and consisted primarily of:

- \$5.3 million of Fujifilm Diosynth Biotechnologies U.S.A., Inc. (“FUJIFILM”), our CMO, contract manufacturing expenses related to the development and manufacturing of VGL101;
- \$3.0 million of VGL101 program expenses;
- \$2.4 million of small molecule TREM2 agonist program expenses;
- \$1.7 million of external costs and other expenses; and
- \$3.1 million of facilities, personnel-related and other expenses, of which \$2.8 million related to personnel-related costs, including salaries, bonuses, and other compensation-related costs, including stock-based compensation of \$0.3 million.

*General and Administrative Expenses*

General and administrative were \$0.2 million for the period from June 22, 2020 (inception) to June 30, 2020 and consisted primarily of professional fees.

General and administrative expenses were \$3.3 million for the six months ended June 30, 2021 and consisted primarily of:

- \$1.7 million of personnel-related costs, including salaries, bonuses and other compensation-related costs, including stock-based compensation of \$0.5 million;



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- \$1.2 million of professional fees, including legal, accounting and other expenses; and
- \$0.4 million of other general and administrative expenses.

#### *Change in Fair Value of the Related Party Antidilution Obligation*

The change in fair value of the Related Party Antidilution Obligation was \$0.8 million for the six months ended June 30, 2021 and related to the remeasurement to fair value of the Related Party Antidilution Obligation associated with the Amgen Agreement at June 30, 2021.

#### *Change in Fair Value of Series A Preferred Stock Tranche Obligation*

The change in fair value of Series A Tranche Obligation was \$28 thousand for the six months ended June 30, 2021 and related to the remeasurement to fair value of the Series A Preferred Stock Tranche Obligation associated with the Series A Convertible Preferred Stock Purchase Agreement at June 30, 2021.

## Liquidity and Capital Resources

### *Sources of Liquidity*

Since our inception, we have not generated any revenue from product sales and have incurred significant operating losses and negative cash flows from our operations. We expect to incur significant expenses and operating losses for the foreseeable future as we advance the clinical development of our therapeutic candidates. Since our inception through June 30, 2021, we have funded our operations with net proceeds from sales of our convertible preferred stock and SAFE notes of \$49.8 million. As of June 30, 2021, we had cash and cash equivalents of \$33.1 million. Subsequently, on August 13, 2021, we issued 25,657,096 shares of our Series B preferred stock at \$3.5078 per share, for which we received aggregate cash proceeds of approximately \$90.0 million.

Without additional funding, we believe that we will not have sufficient funds to meet our obligations within the next twelve months from the date of issuance of our consolidated financial statements. These factors raise substantial doubt about our ability to continue as a going concern.

Based on our current operating plan, we expect the net proceeds from this offering, together with our existing cash, will be sufficient to fund our planned operating expenses and capital expenditure requirements through .

### *Cash Flows*

The following table summarizes our sources and uses of cash for each of the periods presented:

	Period from June 22, 2020 (Inception) to December 31, 2020	Six Months Ended June 30, 2021
	(\$ in thousands)	
Net cash used in operating activities	\$ (5,180)	\$ (10,927)
Net cash used by investing activities	\$ (500)	\$ (70)
Net cash provided by financing activities	\$ 29,831	\$ 19,905
Net increase in cash and cash equivalents	<u>\$ 24,151</u>	<u>\$ 8,908</u>

There were no cash flows during the period from June 22, 2020 (inception) to June 30, 2020.

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### *Operating Activities*

During the period from June 22, 2020 (inception) to December 31, 2020 operating activities consisted primarily of our net loss of \$28.5 million, partially offset by (i) \$20.9 million acquired IPR&D fee associated with the Amgen Agreement, (ii) \$1.3 million change in Related Party Antidilution Obligation, (iii) \$0.8 million of changes in operating assets and liabilities and (iv) \$0.3 million stock-based compensation expense. The net loss consisted of \$20.9 million of related party acquired in-process research and development, \$4.5 million of research and development expenses, \$1.8 million of general and administrative expenses and a \$1.3 million unfavorable change in fair value of Related Party Antidilution.

During the period from June 22, 2020 (inception) to June 30, 2020 there were no cash flows from operating activities. The net loss of \$0.4 million was offset by \$0.4 million of changes in operating assets and liabilities. The net loss consisted of \$0.2 million of research and development expenses and \$0.2 million of general and administrative expenses.

During the six months ended June 30, 2021, operating activities consisted primarily of our net loss of \$19.6 million, partially offset by (i) \$7.0 million of changes in operating assets and liabilities, (ii) \$0.8 million change in Related Party Antidilution Obligation and (iii) \$0.8 million stock-based compensation expense. The net loss consisted of \$15.4 million of research and development expenses, \$3.3 million of general and administrative expenses and a \$0.8 million unfavorable change in fair value of Related Party Antidilution Obligation.

### *Investing Activities*

During the period from June 22, 2020 (inception) to December 31, 2020, net cash used by investing activities consisted of \$0.5 million paid as part of the Amgen Agreement.

During the period from June 22, 2020 (inception) to June 30, 2020, there were no cash flows from investing activities.

During the six months ended June 30, 2021, net cash used by investing activities consisted of \$0.1 million of capital expenditures.

### *Financing Activities*

During the period from June 22, 2020 (inception) to December 31, 2020, net cash provided by financing activities consisted primarily of \$5.0 million in gross proceeds from the SAFE and \$25.0 million gross proceeds from the issuance of 9,815,467 shares of Series A convertible preferred stock at a purchase price of \$2.547 per share, offset by approximately \$0.2 million of issuance costs.

During the period from June 22, 2020 (inception) to June 30, 2020, there were no cash flows from financing activities.

During the six months ended June 30, 2021, net cash provided by financing activities consisted primarily of \$20.0 million gross proceeds from the issuance of 7,852,373 shares of Series A convertible preferred stock at a purchase price of \$2.547 per share, offset by approximately \$0.1 million of issuance costs.

Our primary uses of cash are to fund our research and development activities related to our VGL101 and small molecule TREM2 agonist program, hiring personnel, raising capital and providing general and administrative support for these operations.

We currently have no ongoing material financing commitments that are expected to affect our liquidity over the next five years, other than our lease obligations and a \$0.9 million standby letter of credit we entered into in September 2021, in connection with a lease for laboratory and office space in Watertown, Massachusetts. The standby letter of credit expires in December 2032. See “—Contractual Obligations and Commitments”).

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### *Funding Requirements*

To date, we have not generated any revenue from product sales. We do not expect to generate revenue from product sales unless and until we successfully complete clinical development of, receive regulatory approval for, and commercialize, VGL101, and we do not know when, or if at all, that will occur. We expect our expenses and capital requirements to increase significantly in connection with our ongoing activities, particularly as we continue the research and development of, initiate clinical trials of, and seek marketing approval for our VGL101 and small molecule TREM2 agonist program. In addition, if we obtain regulatory approval for any of our therapeutic candidates, we expect to incur significant expenses related to product sales, marketing, and distribution to the extent that such sales, marketing and distribution are not the responsibility of potential collaborators. We may also require additional capital to pursue in-licenses or acquisitions of other drug candidates. Further, following the completion of this offering, we expect to incur additional costs associated with operating as a public company. Accordingly, we will require substantial additional funding to develop our therapeutic candidates and support our continuing operations. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate our product development or future commercialization efforts.

Our future capital requirements will depend on many factors, including:

- the initiation, scope, progress, timing, results and costs of product discovery, preclinical studies and clinical trials for our therapeutic candidates or any future candidates we may develop;
- our ability to maintain our relationship with Amgen and any other key licensors or collaborators;
- the scope, prioritization and number of our research and development programs;
- the costs, timing and outcome of seeking and obtaining regulatory approvals from the FDA and comparable foreign regulatory authorities, including the potential for such authorities to require that we perform more preclinical studies or clinical trials than those that we currently expect or change their requirements on studies that had previously been agreed to;
- our ability to establish and maintain collaborations on favorable terms, if at all;
- the achievement of milestones or occurrence of other developments that trigger payments under any collaboration agreements we enter into;
- the extent to which we are obligated to reimburse, or entitled to reimbursement of, clinical trial costs under collaboration agreements, if any;
- the costs to establish, maintain, expand, enforce and defend the scope of our intellectual property portfolio, including preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- the extent to which we acquire or in-license other therapeutic candidates and technologies;
- the costs of securing manufacturing arrangements for commercial production;
- the costs of establishing or contracting for sales and marketing capabilities if we obtain regulatory approvals to market our therapeutic candidates; and
- our need to implement additional internal systems and infrastructure, including financial and reporting systems.

Identifying potential therapeutic candidates and conducting preclinical studies and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain regulatory approval and commercialize our therapeutic candidates. In addition, our therapeutic candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all.

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Until such time, if ever, as we can generate significant revenue from product sales or other sources, we expect to finance our operations through the sale of equity, debt financings, or other capital sources, which could include proceeds from potential collaborations, strategic partnerships or marketing, distribution, licensing or other similar arrangements with third parties. However, we may be unable to raise additional funds or enter into such agreements or arrangements on favorable terms, or at all. Market volatility resulting from the COVID-19 pandemic or other factors could also adversely impact our ability to access capital as and when needed. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Any future debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, selling or licensing our assets, making capital expenditures, declaring dividends or encumbering our assets to secure future indebtedness. Such restrictions could adversely impact our ability to conduct our operations and execute our business plan.

If we raise funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or therapeutic candidates or to grant licenses on terms that may not be favorable to us. If we fail to raise capital or enter into such agreements as, and when, needed, we may have to significantly delay, scale back or discontinue the development or commercialization of our therapeutic candidates or grant rights to develop and market therapeutic candidates that we would otherwise prefer to develop and market ourselves.

**Contractual Obligations and Commitments**

The following table summarizes our contractual obligations and commitments as of June 30, 2021:

<u>Description</u>	<u>Payments Due by Period</u>			
	<u>Total</u>	<u>Less than 1 year</u>	<u>1 – 3 years</u>	<u>3 – 5 years</u>
Operating and finance leases	\$554	\$ 179	\$375	\$ —
Total	\$554	\$ 179	\$375	\$ —

(\$ in thousands)

Apart from the contracts with payment commitments that we have reflected in the table above, we have entered into contracts in the normal course of business with CROs, CMOs and other third parties for preclinical research studies and testing, clinical trials and manufacturing services. These contracts do not contain any minimum purchase commitments and are cancelable by us upon prior notice and, as a result, are not included in the table of contractual obligations and commitments above. Payments due upon cancellation consist only of payments for services provided and expenses incurred, including non-cancelable obligations of our service providers, up to the date of cancellation.

We may in the future incur potential royalty payments under license and collaboration agreements we have entered and will enter into with various entities pursuant to which we have in-licensed certain intellectual property, such as our exclusive license agreement with Amgen. Due to the uncertainty of the achievement and timing of the events requiring payment under these agreements, the amounts to be paid by us are not fixed or determinable at this time and are excluded from the table above.

Subsequent to June 30, 2021, we entered into the following commitments:

- In August 2021, we entered into a purchase commitment with FUJIFILM, of which \$4.5 million is non-cancelable.
- In September 2021, we entered into a 10-year lease agreement for laboratory and office space in Watertown, MA. The monthly lease payment is approximately \$0.2 million with annual escalation of

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approximately 3%. The lease includes a \$3.7 million construction allowance, and the lease commencement date is anticipated to be in the second quarter of 2022.

- In September 2021, we entered into a \$0.9 million standby letter of credit which expires in December 2032 associated with the Watertown, MA lease.

### Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

### Critical Accounting Policies and Significant Judgements and Estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with United States generally accepted accounting principles, or GAAP. The preparation of our financial statements and related disclosures requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, expenses, and the disclosure of our contingent liabilities in our financial statements. We base our estimates on historical experience, known trends and events and various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 to our consolidated financial statements included elsewhere in this prospectus, we believe that the following accounting policies are those most critical to the judgments and estimates used in the preparation of our audited financial statements.

#### *Research and Development*

As part of the process of preparing our consolidated financial statements, we are required to estimate our accrued research and development expenses. This process involves estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of actual costs. The majority of our service providers invoice us in arrears for services performed, on a pre-determined schedule or when contractual milestones are met; however, some require advance payments. We make estimates of our accrued expenses as of each balance sheet date in the consolidated financial statements based on facts and circumstances known to us at that time. At each period end, we corroborate the accuracy of these estimates with the service providers and make adjustments, if necessary. Examples of estimated accrued research and development expenses include those related to fees paid to:

- vendors in connection with discovery and preclinical development activities;
- CROs in connection with preclinical studies and testing; and
- CMOs in connection with the process development and scale up activities and the production of materials.

We record the expense and accrual related to contract research and manufacturing based on our estimates of the services received and efforts expended considering a number of factors, including our knowledge of the progress towards completion of the research, development, and manufacturing activities; invoicing to date under contracts; communication from the CROs, CMOs, and other companies of any actual costs incurred during the period that have not yet been invoiced; and the costs included in the contracts and purchase orders. The financial terms of these agreements are subject to negotiation, vary from contract to contract, and may result in uneven payment flows. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the expense. In accruing service fees, we estimate the time period over

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which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from the estimate, we adjust the accrual or the amount of prepaid expense accordingly. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in reporting amounts that are too high or too low in any particular period. To date, there have not been any material adjustments to our prior estimates of accrued research and development expenses, however, there is no guarantee there will not be any such adjustments in the future.

### *Determination of Fair Value of Common Stock*

As there has been no public market for our common stock to date, the estimated fair value of our common stock has been determined by our board of directors as of the date of each option grant, with input from management, considering our most recently available third-party valuations of common stock and our board of directors' assessment of additional objective and subjective factors that it believed were relevant and which may have changed from the date of the most recent valuation through the date of the grant. These third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, Valuation of Privately-Held-Company Equity Securities Issued as Compensation.

Our common stock valuations were prepared using either an option pricing method, or OPM, or a hybrid method of OPM and probability-weighted expected return method, or PWERM. Both the OPM and hybrid method use market approaches to estimate our enterprise value. The OPM treats common stock and preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceeded the value of the preferred stock liquidation preferences at the time of the liquidity event, such as a strategic sale or a merger.

The PWERM is a scenario-based methodology that estimates the fair value of common stock based upon an analysis of future values for the company, assuming various outcomes. The common stock value is based on the probability-weighted present value of expected future investment returns considering each of the possible outcomes available as well as the rights of each class of stock. The future value of the common stock under each outcome is discounted back to the valuation date at an appropriate risk-adjusted discount rate and probability weighted to arrive at an indication of value for the common stock. A discount for lack of marketability of the common stock is then applied to arrive at an indication of value for the common stock.

The hybrid method is a hybrid between the PWERM and OPM, estimating the probability-weighted value across multiple scenarios but using the OPM to estimate the allocation of value within one or more of those scenarios. When using the hybrid method, we assumed two scenarios: an IPO scenario and a sale scenario. The IPO scenario estimated an equity value based on the guideline public company method under a market approach. The guideline public companies considered for this scenario consist of biopharmaceutical companies with recently completed initial public offerings. We converted our estimated future value in an IPO to present value using a risk-adjusted discount rate. The equity value for the sale scenario was estimated using the price of a recently issued preferred security, as well as a milestone-based tranche closing. We utilized an option pricing model to quantify or attribute value to these economic rights of convertible preferred stock as compared to the common stock, such as liquidation preferences, dividend provisions, and participation rights after liquidation preferences.

These third-party valuations were performed at various dates, which resulted in valuations of our common stock of \$0.87 as of July 8, 2020, \$1.27 as of September 18, 2020, \$1.36 as of May 1, 2021, \$2.17 as of July 21, 2021, and \$2.36 as of September 1, 2021. In addition to considering the results of these third-party valuations,

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our board of directors considered various objective and subjective factors to determine the fair value of our common stock as of each grant date, including:

- the prices at which we sold shares of preferred stock and the superior rights and preferences of the preferred stock relative to our common stock at the time of each grant;
- the progress of our research and development programs, including the status and results of preclinical studies for our therapeutic candidates;
- our stage of development and our business strategy;
- external market conditions affecting the biopharmaceutical industry and trends within the biopharmaceutical industry;
- our financial position, including cash on hand, and our historical and forecasted performance and operating results;
- the lack of an active public market for our common stock and our preferred stock;
- significant changes to the key assumptions underlying the factors used could have resulted in different fair values of common stock at each valuation date;
- the likelihood of achieving a liquidity event, such as an initial public offering, or IPO, or sale of our company in light of prevailing market conditions; and
- the analysis of IPOs and the market performance of similar companies in the therapeutics industry.

The assumptions underlying these valuations represented management's best estimate, which involved inherent uncertainties and the application of management's judgment. As a result, if we had used significantly different assumptions or estimates, the fair value of our common stock and our stock-based compensation expense could have been materially different.

Once a public trading market for our common stock has been established in connection with the completion of this offering, it will no longer be necessary for our board of directors to estimate the fair value of our common stock in connection with our accounting for granted stock options and other such awards we may grant, as the fair value of our common stock will be determined based on the quoted market price of our common stock.

**Option Grants**

The following table summarizes by grant date the number of shares subject to options granted since June 22, 2020 (inception), the per share exercise price of the options, the per share fair value of our common stock on each grant date and the per share estimated fair value of the options:

<u>Grant Date</u>	<u>Number of Shares Subject to Options Granted</u>	<u>Per Share Exercise Price of Options</u>	<u>Per Share Fair Value of Common Stock on Grant Date</u>	<u>Per Share Estimated Fair Value of Options</u>
July 8, 2020	850,000 <sup>(1)</sup>	\$ —	\$ 0.87 <sup>(2)</sup>	\$ 0.87
November 19, 2020	3,248,196	\$ 0.68	\$ 1.27 <sup>(3)</sup>	\$ 0.98
November 23, 2020	26,606	\$ 0.68	\$ 1.27 <sup>(3)</sup>	\$ 0.99
February 23, 2021	194,554	\$ 0.68	\$ 1.27 <sup>(3)</sup>	\$ 0.98
June 4, 2021	1,517,195	\$ 1.36	\$ 1.36	\$ 0.93
July 29, 2021	131,111	\$ 2.17	\$ 2.17	\$ 1.47
August 19, 2021	2,602,754	\$ 2.17	\$ 2.17	\$ 1.46
September 1, 2021	381,250	\$ 2.17	\$ 2.36 <sup>(4)</sup>	\$ 1.63

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- (1) Includes 850,000 restricted shares granted in July 2020.
- (2) At the time of the restricted share grants on July 8, 2020, our board of directors determined that the fair value of our common stock of \$0.0001 per share reasonably reflected the fair value of our common stock as of the grant date. However, as described below, the fair value of our common stock as of the date of this grant was adjusted in connection with retrospective fair value assessments for accounting purposes.
- (3) At the time of the option grants from November 19, 2020 to February 23, 2021, our board of directors determined that the fair value of our common stock of \$0.68 per share reasonably reflected the fair value of our common stock as of the grant date as of the respective grant dates in that period. However, as described below, the fair value of our common stock as of the date of these grants was adjusted in connection with retrospective fair value assessments for accounting purposes.
- (4) At the time of the option grants on September 1, 2021, our board of directors determined that the fair value of our common stock of \$2.17 per share reasonably reflected the fair value of our common stock as of the grant date. However, as described below, the fair value of our common stock as of the date of this grant was adjusted in connection with retrospective fair value assessments for accounting purposes.

In the course of preparing for this offering, in June 2021, we performed a retrospective fair value assessment and concluded that (i) the fair value of our common stock underlying stock options that we granted on July 8, 2020 was \$0.87 per share for accounting purposes and (ii) the fair value of our common stock underlying stock options that we granted on November 19, 2020, November 23, 2020 and February 23, 2021 was \$1.27 per share for accounting purposes. These reassessed values were based, in part, upon third-party valuations of our common stock prepared on a retrospective basis as of June 1, 2021 and prepared on a contemporaneous basis as of August 11, 2021. The third-party retrospective valuation was prepared using the OPM or the PWERM, both which used the market approach to determine our enterprise value.

In the course of preparing for this offering, in September 2021, we performed a retrospective fair value assessment and concluded that the fair value of our common stock underlying stock options that we granted on September 1, 2021 was \$2.36 per share for accounting purposes. The reassessed value was based, in part, upon a third-party valuation of our common stock prepared on a retrospective basis as of September 1, 2021. The third-party retrospective valuation was prepared using the hybrid method, which used the market approach to determine our enterprise value.

***Valuation of Series A Preferred Stock Tranche Obligation and Related Party Antidilution Obligation***

The Series A Preferred Stock Tranche Obligation was valued using a probability-weighted present value model. The valuation model considered the probability of closing the tranche, the estimated future value of the Series A convertible preferred stock to be issued at each closing and the investment required at each closing. Future values were converted to present value using a discount rate appropriate for probability-adjusted cash flows. The Series A Preferred Stock Tranche Obligation was settled during the six months ended June 30, 2021.

The Related Party Antidilution Obligation was valued using a probability-weighted expected return method, which requires a variety of inputs, including the probability of occurrence of events that would trigger the issuance of additional shares, the expected timing of such events, the expected value of the contingently issuable equity upon occurrence of a triggering event and a discount rate. The fair value of the Related Party Antidilution Obligation when it was settled in May 2021 was \$5.1 million which was based on 1,963,093 shares of preferred stock issued at a price of \$2.589 per share.

**Emerging Growth Company Status**

The Jumpstart Our Business Startups Act of 2012 (“JOBS”) permits an “emerging growth company” such as us to take advantage of an extended transition to comply with new or revised accounting standards applicable to public companies until those standards would otherwise apply to private companies. We have elected not to “opt out” of such extended transition period, which means that when a standard is issued or revised and it has different



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application dates for public or private companies, we will adopt the new or revised standard at the time private companies adopt the new or revised standard and will do so until such time that we either (i) irrevocably elect to “opt out” of such extended transition period or (ii) no longer qualify as an emerging growth company. There are other exemptions and reduced reporting requirements provided by the JOBS Act that we are currently evaluating. For example, as an “emerging growth company,” we are exempt from Sections 14A(a) and (b) of the Securities Exchange Act of 1934, as amended, which would otherwise require us to (1) submit certain executive compensation matters to shareholder advisory votes, such as “say-on-pay,” “say-on-frequency,” and “golden parachutes;” and (2) disclose certain executive compensation related items such as the correlation between executive compensation and performance and comparisons of our chief executive officer’s compensation to our median employee compensation. We also intend to rely on an exemption from the rule requiring us to provide an auditor’s attestation report on our internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act. We will continue to remain an “emerging growth company” until the earliest of the following: (1) the last day of the fiscal year following the fifth anniversary of the date of the completion of this offering; (2) the last day of the fiscal year in which our total annual gross revenue is equal to or more than \$1.07 billion; (3) the date on which we have issued more than \$1 billion in nonconvertible debt during the previous three years; or (4) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

### Recently Issued Accounting Pronouncements

A description of recently issued accounting pronouncements that may potentially impact our financial position, results of operations and cash flows is disclosed in Note 2 to our consolidated financial statements included elsewhere in this prospectus.

### Qualitative and Quantitative Disclosures about Market Risk

#### *Interest Rate Risk*

As of December 31, 2020, we had cash and cash equivalents of \$24.2 million. As of June 30, 2021, we had cash and cash equivalents of \$33.1 million. Interest income is sensitive to changes in the general level of interest rates. Our surplus cash has been invested in money market fund accounts and interest-bearing savings accounts. We have not entered into investments for trading or speculative purposes. Due to the conservative nature of our investment portfolio, which is predicated on capital preservation of investments with short-term maturities, we do not believe an immediate one percentage point change in interest rates would have a material effect on the fair market value of our portfolio, and therefore we do not expect our operating results or cash flows to be significantly affected by changes in market interest rates. As of December 31, 2020, and June 30, 2021, we had no debt outstanding. Therefore, we are not exposed to interest rate risk with respect to debt.

All of our employees and our operations are currently located in the United States. We have, from time to time, engaged in contracts with contractors or other vendors in a currency other than the U.S. dollar.

To date, we are not currently exposed to significant market risk related to changes in foreign currency exchange rates. Our operations may be subject to fluctuations in foreign currency exchange rates in the future.

We do not believe that inflation has had a material effect on our business, financial condition or results of operations. Our operations may be subject to inflation in the future.

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**BUSINESS**

**Overview**

We are a microglia-focused company dedicated to improving the lives of patients, caregivers and families affected by rare and common neurodegenerative diseases by pursuing the development of disease-modifying therapeutics to restore the vigilance of microglia. Microglia are the sentinel immune cells of the brain and play a critical role in maintaining central nervous system (CNS) health and responding to damage caused by disease. Leveraging recent research implicating microglial dysfunction in neurodegenerative diseases, we utilize a precision medicine approach to develop a pipeline of therapeutic candidates, initially for genetically defined patient subpopulations, that we believe will activate and restore microglial function. Our first therapeutic candidates are designed to activate Triggering Receptor Expressed on Myeloid cells 2 (TREM2), a key microglial receptor protein that mediates responses to environmental signals to maintain brain health and whose dysfunction is linked to neurodegeneration. Our lead candidate, VGL101, is a fully human monoclonal antibody (mAb) that is designed to activate TREM2. We expect to begin our first-in-human Phase 1 clinical trial in healthy volunteers in [REDACTED] and expect to complete it in [REDACTED]. We are initially developing VGL101 for the treatment of adult-onset leukoencephalopathy with axonal spheroids and pigmented glia (ALSP), a rare, genetically defined, and fatal neurodegenerative disease caused by microglial dysfunction. We intend to expand development of VGL101 for the treatment of additional rare leukoencephalopathies and leukodystrophies where microglia play an essential role, including cerebral adrenoleukodystrophy (cALD). We are also developing a novel small molecule TREM2 agonist suitable for oral delivery to treat common neurodegenerative diseases associated with microglial dysfunction. The initial focus of our novel small molecule TREM2 agonist program is for the treatment of Alzheimer's disease (AD) in genetically defined patient subpopulations. We expect to select a development candidate by [REDACTED] and, following Investigational New Drug (IND)-enabling studies, plan to initiate a first-in-human healthy volunteer study. We believe our microglia focus, precision medicine approach, and pipeline, which spans multiple modalities, strongly position us to become a differentiated leader in the neurodegenerative therapeutic space.

Microglia sense signals in the brain, maintain homeostasis, and coordinate signal-specific downstream responses to clear pathogens and cellular debris that can evolve into disease-inducing agents. Homeostatic microglia transition to a neuroprotective disease-associated microglia (DAM) phenotype that maintains the anti-inflammatory CNS environment and removes protein clumps (misfolded protein aggregates that can form plaques) and cellular debris that accumulate in the brains of patients with neurodegenerative diseases and during normal aging. Microglial dysfunction, including the failure to transition to the DAM phenotype, is linked to a range of rare and common neurodegenerative diseases, including leukoencephalopathies, leukodystrophies, AD (particularly genetically defined AD subpopulations), and frontotemporal dementia (FTD). Preclinical data generated by third parties also support the modulation of microglia as a potential therapeutic approach in a variety of CNS diseases in the absence of a clear genetic link to microglial dysfunction such as Parkinson's disease (PD) and Multiple Sclerosis (MS).

TREM2 acts as a sensor to detect cellular debris, lipids, and other damage signals. The receptor's normal function is required for microglial transition to the neuroprotective DAM phenotype. TREM2's protective role in neurodegenerative diseases was discovered through genome-wide association studies (GWAS). Multiple third party studies in animal models and in humans have shown that TREM2 deficiency is a likely driver of neurodegeneration, and we believe such studies provide a compelling rationale for therapeutically activating TREM2 signaling to treat neurodegenerative diseases.

We believe that each of the therapeutic candidates in our pipeline has the potential to be developed for multiple neurodegenerative diseases. Our precision medicine approach begins with rare, genetically defined diseases for which microglial dysfunction is believed to be a key driver of disease pathology and then utilizes findings from these efforts to inform expansion into larger and more common neurodegenerative diseases. Our strategy has the potential to mitigate downstream translational risk as we seek to advance our programs through

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early development and into the clinic. We believe this iterative, sequential approach is a key differentiator, potentially allowing us to generate clinical proof-of-concept (PoC) efficiently and leverage our initial development programs as well as research by others, in pursuing additional neurodegenerative disease opportunities.

We are executing on this approach with our lead pipeline candidate, VGL101, by initially focusing on the treatment of ALS. ALS affects an estimated 10,000 people in the U.S., with about 1,000 to 2,000 new cases annually. ALS has been diagnosed in countries around the world, with major clusters in North America (U.S. and Canada), Central and Northern Europe, and Asia. ALS is caused by loss-of-function mutations in the Colony Stimulating Factor 1 Receptor (CSF1R), a receptor that shares a common downstream signaling pathway with TREM2. The therapeutic rationale for VGL101 is to compensate for CSF1R loss-of-function by activating TREM2. We have generated robust preclinical evidence that suggests TREM2 agonism can rescue CSF1R loss-of-function.

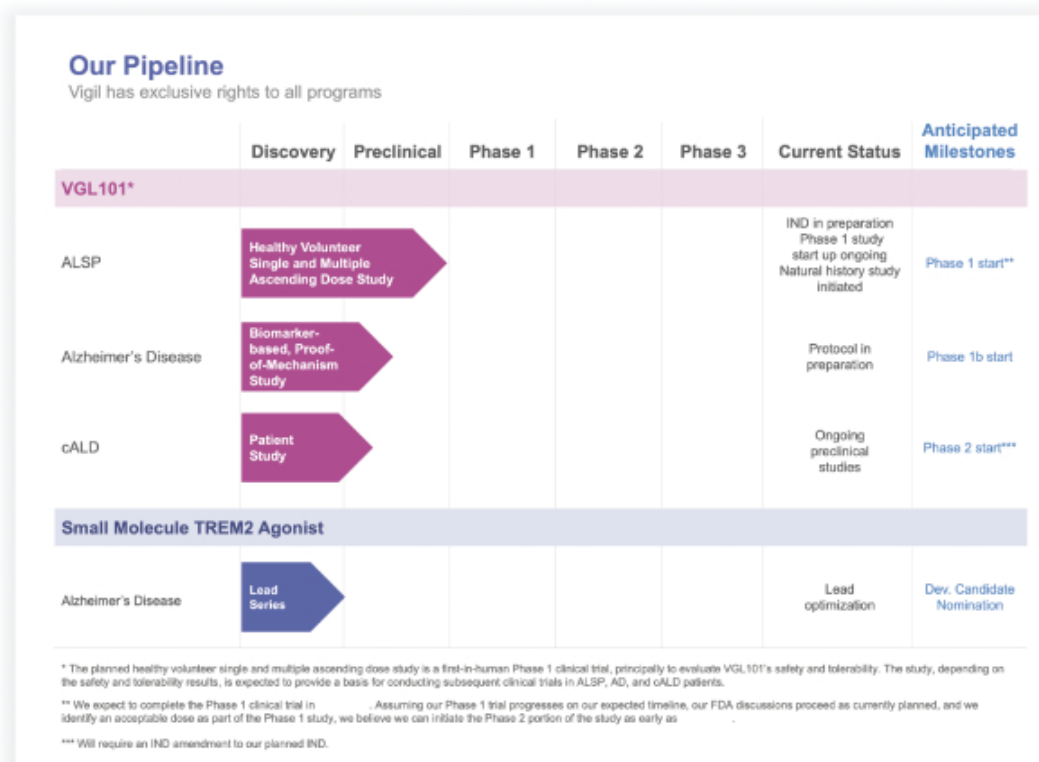
Engagement with our stakeholders, including patients and scientific and provider communities, is central to our approach in rare neurodegenerative diseases. In September 2021, we began a natural history study of ALS patients to better characterize the patient journey, inform our clinical trial design, and facilitate recruitment into our clinical trials. We actively support a patient advocacy organization and have created a strong global network of key opinion leaders (KOLs), centers of excellence, and genetic counseling practices that each treat ALS patients and work with families affected by the disease. We have also established the world's first patient-facing ALS informational website to build disease awareness.

Beyond VGL101, we are developing a novel small molecule TREM2 activator (agonist) for the treatment of AD. GWAS have shown that a specific mutation in a TREM2 variant (*R47H*) has one of the strongest associations with the development of AD, second in magnitude only to that associated with the apolipoprotein E4 (*ApoE4*) genotype. Our strategy in AD is to follow a precision medicine approach that first establishes that VGL101 treatment has the potential to correct microglial dysregulation in AD within certain genetically defined patient subpopulations, including those carrying TREM2 and other variants. If the studies support it, we plan to expand the development of our TREM2 agonist into broader AD patient populations.

AD is the most common cause of dementia affecting an estimated 6.2 million patients in the U.S. alone as well as their families and caregivers. The cost of care for people with AD to our healthcare system is substantial. According to the Alzheimer's Association, the aggregate cost of AD and other dementias is expected to be \$355 billion in 2021 and this number could increase to as much as \$1.1 trillion by 2050.

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The following table highlights our preclinical and clinical programs.



Over time, we plan to expand our pipeline, either through internal discovery and development, or through strategic collaborations or alliances with academic organizations, or pharmaceutical or biotechnology companies.

**Our Corporate History and Team**

We were co-founded in mid-2020 by Atlas Venture and shortly thereafter entered into a license agreement with Amgen Inc. (Amgen). Through the license agreement, we acquired exclusive worldwide rights to Amgen's TREM2 agonist program, including VGL101 and related molecules, the small molecule TREM2 agonist program, associated intellectual property, and certain manufacturing know-how.

We have built an experienced management team with a proven track record of drug discovery and development in neuroscience, as well as substantial operational and business expertise. Our CEO, Ivana Magovčević-Liebisch, PhD, JD, is an accomplished pharmaceutical and biotechnology executive with more than 20 years of senior management experience in financing, strategic partnerships, mergers and acquisitions, clinical development, regulatory affairs, commercialization, legal, and intellectual property strategies. Richard A. Fisher, PhD, our Chief Scientific Officer, has broad experience in research and development and executive management, having led numerous teams to deliver multiple pipeline candidates across diverse technology platforms and modalities in neurodegenerative diseases and other therapeutic areas. Spyridon (Spyros) Papapetropoulos, MD, PhD, our Chief Medical Officer, is an experienced biopharmaceutical executive, recognized neuroscientist, and neurodegenerative disease clinician. Jennifer Ziolkowski, CPA, our Chief Financial Officer, has more than 25 years of executive management experience in various cross-functional finance and operational leadership roles. Evan A. Thackaberry, PhD, DABT, our Senior Vice President, Early Development, brings over 15 years of drug development experience and cross-functional leadership.

Our team is supported by a group of investors who have shared our vision and commitment to harness the power of microglia to develop transformative treatments for neurodegenerative diseases. Through September 2021, we have raised approximately \$140 million, supported by a leading syndicate of investors, including Atlas Venture, Vida Ventures, Northpond Ventures, Hatteras Venture Partners, Cormorant Asset Management, Deep Track Capital, Surveyor Capital (a Citadel company), Rock Springs Capital, Invus Public Equities, OrbiMed, Lightstone Ventures, Logos Capital, and Pivotal bioVenture Partners.

## Our Business Strategy

Our goal is to be a leader in the development and commercialization of microglia-targeted, disease-modifying therapeutics that slow or halt progression of a range of rare and common neurodegenerative diseases. Key elements of our business strategy are to:

- **Apply our precision medicine approach to develop microglia-targeted therapies for patients with rare, genetically defined neurodegenerative diseases and subsequently advance into neurodegenerative diseases affecting larger patient populations.** The initial indications we are pursuing are rare diseases that have strong genetic, mechanistic, and biochemical associations with microglial dysfunction. We believe these associations provide a strong rationale for potential intervention with microglia-targeted therapies. By focusing on these known relationships, we believe we may mitigate downstream translational risk as we seek to advance our programs through early development and into the clinic. We expect this approach will allow us to identify biologically and clinically relevant biomarkers and to generate PoC efficiently. We plan to apply the specific learnings from these studies to pursue the development of our therapeutic candidates in other neurodegenerative disease indications with broader patient populations.
- **Advance our lead therapeutic candidate, VGL101, a mAb TREM2 agonist, for the treatment of ALSP and other rare leukoencephalopathies and leukodystrophies.** We are currently developing VGL101, our fully human mAb that is highly selective for TREM2, for the treatment of ALSP. We believe there is strong genetic, molecular, and cellular evidence implicating microglial dysfunction and signaling deficiency in ALSP, which we believe could be correctable by TREM2 activation. In September 2021, we began a non-interventional natural history study of ALSP patients and plan to begin our first-in-human Phase 1 clinical trial with healthy volunteers in [redacted] and expect to complete the Phase 1 clinical trial in [redacted]. Pending safety results of the Phase 1 trial and discussions with the FDA, we plan to conduct a potentially registrational Phase 2/3 trial in ALSP patients. Assuming our Phase 1 trial progresses on our expected timeline, our FDA discussions proceed as currently planned, and we identify an acceptable dose as part of the Phase 1 study, we believe we can initiate the Phase 2 portion of the study as early as [redacted]. We plan to leverage various target engagement and therapeutic biomarkers to evaluate the biology and clinical activity of VGL101. Target engagement biomarkers, such as IP-10, the soluble versions of the Colony Stimulating Factor 1 Receptor (sCSF1R) and TREM2 (sTREM2), are designed to assess VGL101's ability to bind to TREM2 and generate a biological result, such as increased or decreased levels of a protein specifically resulting from TREM2 activation. Such studies aim to establish proof of mechanism (PoM). We believe disease biomarkers, such as changes in the neurofilament light protein (NfL) levels in serum or cerebrospinal fluid, and magnetic resonance imaging (MRI) for white matter lesion changes, are potential indicators of therapeutic response and in human studies, may support demonstration of PoC. We may seek to expand the development of VGL101 for use in additional rare leukoencephalopathies and leukodystrophies where microglia play an essential role, including cALD, Metachromatic Leukodystrophy (MLD), and Krabbe Leukodystrophy (Krabbe). This class of diseases is also characterized by increased permeability of the blood brain barrier, which we expect will facilitate the passage of VGL101 from the bloodstream into the brain.

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- **Develop a novel, orally-available, small molecule TREM2 agonist for the treatment of more common neurodegenerative diseases, beginning with genetically defined subpopulations of AD patients.** Peer reviewed literature suggests there is a strong genetic association between certain TREM2 variants and the development and progression of AD. We believe our precision medicine approach will enable us to identify subpopulations of AD patients that are most likely to benefit from treatment with a small molecule TREM2 agonist. We plan to begin the work of selecting genetically defined subpopulations to evaluate in our small molecule program by studying microglial modulation with VGL101. Our first-in-human clinical trial of VGL101 will include healthy volunteers with AD-linked TREM2 variants. We also plan to submit a protocol to the FDA under our planned IND to conduct a Phase 1b biomarker-based, PoM clinical study with VGL101 in genetically defined AD patients with or without the relevant TREM2 variants, expected to begin in . Data from these and other studies, including a Phase 1 healthy volunteer study, will inform the selection of the patient population for a Phase 2 clinical trial with a small molecule candidate designed to evaluate efficacy and safety. In preclinical studies conducted to date, the small molecule compounds we are developing have demonstrated encouraging CNS penetration and physiochemical properties that we believe make them suitable for oral delivery. We believe that an orally-available small molecule therapeutic may have meaningful clinical and commercial advantages in large chronic indications, especially when treatment is administered in the outpatient setting. We expect to have a development candidate from our lead series selected by , and, following IND-enabling studies, initiate a first-in-human healthy volunteer study.
- **Expand our modality-agnostic product pipeline to other microglial targets beyond TREM2.** Given the central role that microglia play in maintaining brain health, we plan to explore targets beyond TREM2 for the development of therapeutics that modulate microglial activity across multiple modalities for the treatment of additional neurodegenerative diseases. We plan to regularly evaluate opportunities to expand and diversify our pipeline either through internal discovery and development, or through strategic collaborations or alliances with academic organizations, pharmaceutical or biotechnology companies.
- **Engage the stakeholder community including patients, advocacy groups, and clinical leaders.** Support of the stakeholder community is an integral part of our mission to bring microglia-targeted therapeutics to patients with neurodegenerative diseases. Early and ongoing engagement increases our understanding of the patient journey, helps build disease awareness, and facilitates recruitment of patients and clinicians to participate in clinical trials. For example, we actively support the first and only ALSP patient organization, Sisters' Hope Foundation, and launched the world's first patient-facing ALSP informational website, [www.ALSInfo.com](http://www.ALSInfo.com), to increase ALSP awareness, engage with and support patients, the clinical community, and other relevant stakeholders. Beyond developing an ALSP KOL network and forming our Patient and Caregiver Advisory Council (PCAC), we have also partnered with larger leukodystrophy and rare disease umbrella organizations, such as United Leukodystrophy Foundation, National Organization for Rare Diseases (NORD), Global Genes, and the Every Life Foundation.

### Microglia and Their Role in CNS Health and Neurodegeneration

Microglia are the sentinel immune cells of the brain and play a critical role in maintaining CNS health, or homeostasis, and responding to damage caused by disease. In recent years, the scientific community's understanding of microglia's role in brain health and neurodegeneration has advanced markedly. A 2020 review in the journal *Science*, for example, highlighted microglia's "fundamental role" as "governors of neuronal function and homeostasis in the adult brain." In their homeostatic state, microglia monitor for potential damage. Microglia sense multiple types of signals in the brain, including those generated by infection, cell death and breakdown, and replacement of myelin (sheaths of protein and fat that insulate axon fibers that turn over as part of normal brain physiology). Homeostatic microglia transition to a DAM phenotype and then coordinate signal-specific downstream responses, such as potentiation of microglial survival and proliferation, activation of

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microglial phagocytosis (cellular debris removal by innate immune cells), removal of unneeded neural connections (axonal pruning) to maintain synaptic health, and stimulation of microglial lysosomal function, and lipid and cholesterol metabolism

Recent studies have shown that DAM possess neuroprotective disease-preventing effects. DAM are not associated with any specific primary cause of disease pathology or disease etiology, but rather display a protective phenotype that maintains the anti-inflammatory CNS environment and removes protein clumps and cellular debris that accumulate in the brains of patients with neurodegenerative diseases and during normal aging. Microglia maintain homeostasis in healthy areas of the brain by preventing accumulation of debris resulting from normal brain maintenance, and thus preventing initiation of neuroinflammation and neuropathology. For example, in AD animal model studies, DAM congregate and form a protective barrier at sites of neuroinflammatory lesions and around neurotoxic plaques, which are aggregates of  $\beta$ -amyloid protein.

The essential role played by microglia in maintaining brain health is exemplified by diseases of the white matter, such as leukoencephalopathies and leukodystrophies. In these diseases, microglial dysfunction directly affects neuronal function and white matter integrity. White matter consists of bundles of axon fibers wrapped in myelin sheaths that project from neurons and transmit signals across the brain. The bundles of myelin sheaths appear white and together are called white matter. Debris from the maintenance and regeneration of myelin sheaths must be cleared away by DAM to prevent inflammation and subsequently, neurodegeneration. Microglial dysfunction and the subsequent build-up of inflammatory myelin debris in these diseases leads to destruction of the white matter and the breakdown of the blood brain barrier, which can allow disruptive infiltration of inflammatory cells that further drive disease progression. Therefore, we believe treatments that prevent long term microglial dysfunction could prevent failure of the blood brain barrier and the resulting devastating inflammation that leads to neurodegeneration.

In more common neurodegenerative diseases such as AD, evidence suggests that microglia dysfunction is present in genetically defined subpopulations. Similar to leukoencephalopathies and leukodystrophies, failure of microglia to remove debris, in this case protein clumps, is believed to lead to degeneration of vulnerable neuronal subtypes. Restoring microglial function could prevent the expansion of  $\beta$ -amyloid plaque and slow down the neurodegenerative process in these subpopulations.

Our initial focus on microglia and microglia-targeted therapeutics is based on research linking microglia to both rare and common neurodegenerative diseases that either result from genetic mutations or are associated with genetic variations. These conditions include leukoencephalopathies and leukodystrophies, a set of rare, mainly genetic disorders affecting neurons and white matter, such as ALSP, cALD, Krabbe, MLD, as well as genetic subpopulations of AD carrying variants affecting microglial function. Due to their multiple functions, microglia are also implicated in other CNS diseases, including AD, FTD, MS, PD, amyotrophic lateral sclerosis (ALS), and certain rare epilepsies.

Genomic analyses have shown that genetic mutations or variations that affect microglial physiology predispose individuals to neuroimmune dysfunction and neurodegeneration. As a result, the brain's immune function, orchestrated by microglia, deteriorates, and subsequently fails to carry out critical activities, which include:

- clearing pathological neurodegenerative protein aggregates, such as those that accumulate in AD, to prevent accumulation and subsequent neuroinflammation;
- providing metabolic and functional support to maintain healthy nerve cells;
- regulating connections between nerve cells;
- removing white matter debris to prevent inflammation; and
- maintaining blood brain barrier integrity and regulating neurovascular function.

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As illustrated in Figure 1 below, diseases colored in green represent our current focus areas, while diseases colored in purple represent potential future therapeutic opportunities for modulating microglial function.

**Figure 1: Neurodegenerative Diseases Linked to Microglial Function and U.S. Prevalence Estimates**



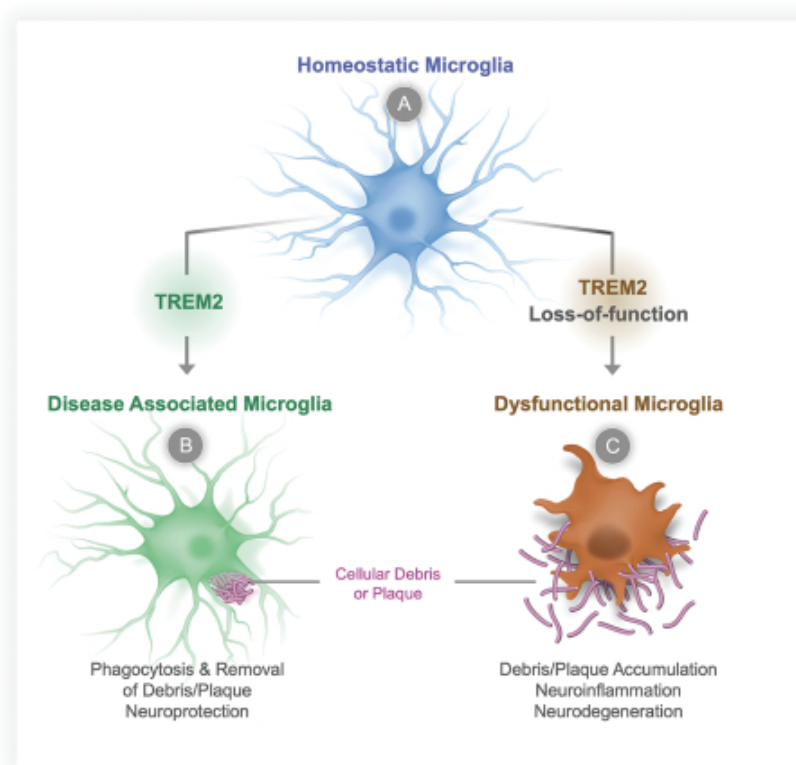
*\*Lennox-Gastaut & Dravet Syndromes (i.e., rare epilepsies)*

**TREM2: Our Initial Therapeutic Target**

Our most advanced therapeutic programs are aimed at developing activators of TREM2, a membrane spanning receptor expressed specifically on microglia in the brain. TREM2 is essential for microglia's homeostatic maintenance functions and response to inflammatory CNS damage in various disease states. TREM2 acts like a sensor to detect cellular damage in the brain, such as from dead neurons and myelin debris (cellular debris), and protein clumps that form plaques. Once TREM2 encounters and binds to such damage, TREM2 mediates signals for the microglia to respond appropriately, for example, by transitioning to DAM, migrating to sites of damage, clearing away debris through phagocytosis, and acting as a barrier to prevent further damage (Figure 2). In preclinical studies across multiple neurodegenerative conditions, it has been shown that the transition from homeostatic microglia to fully activated DAM requires activation of the TREM2 receptor.



**Figure 2: TREM2 Receptor Activation is Required for Homeostatic Microglia to Transition to DAM**



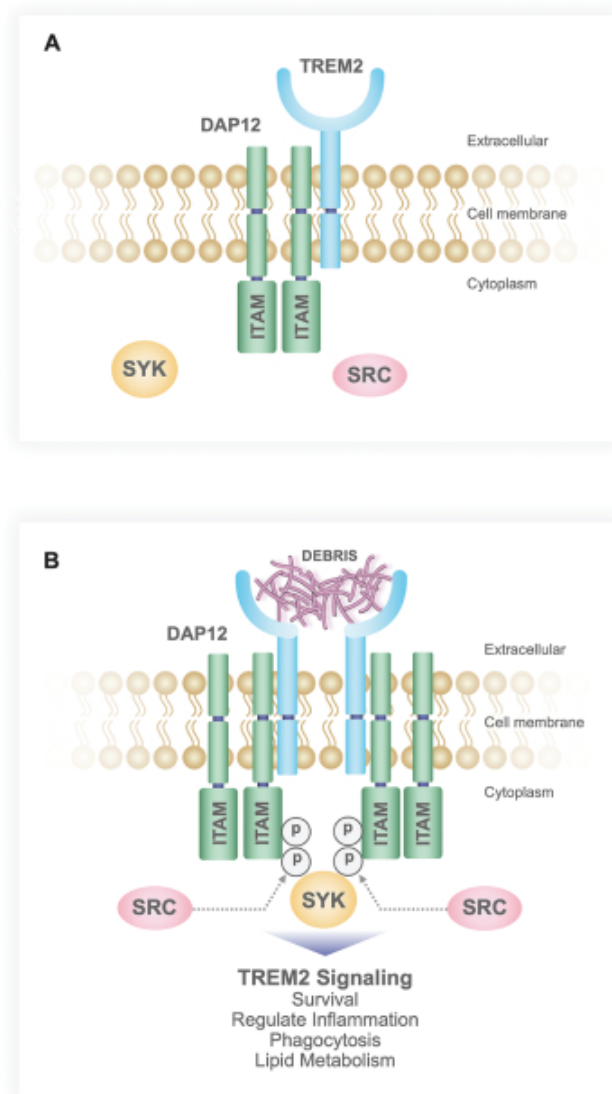
- A. Homeostatic microglia sense debris. B. Microglia transitions to DAM through binding of cellular debris to TREM2, leading to debris removal. C. TREM2 loss-of-function results in dysfunctional microglia, unable to transition to DAM, leading to accumulation of cellular debris, neuroinflammation, and subsequent neurodegeneration.

TREM2's protective role in neurodegenerative disease was discovered through GWAS. This finding was confirmed and extended through transgenic animal studies and single cell RNA sequencing analyses. TREM2 signals through an associated protein complex, which triggers a cascade of biochemical changes that maintain microglial homeostasis and promote microglial migration to sites of injury, activate phagocytosis, and promote cell survival and proliferation.

Figure 3A below shows the TREM2 receptor and the key components of the associated protein complex, including a membrane protein called DNAX-activating protein of 12 kilodaltons (DAP12), which is associated with TREM2, and consists of an intracellular region, called ITAM, and intracellular proteins called SRC and SYK. As shown in Figure 3B, when adjacent TREM2 receptors recognize and bind to damage-associated materials, such as cell debris, the TREM2 receptors cluster. This triggers the phosphorylation, defined as a molecular modification involving addition of a phosphate group, of DAP12 at its ITAM region by SRC. Each phosphorylated ITAM region then binds to SYK, which relays the receptor signals within the cell. SYK also becomes phosphorylated after binding to relay the signal for initiating biochemical changes in the cell to promote microglial survival, proliferation, migration, and phagocytosis, and regulate inflammation and lipid metabolism.

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**Figure 3: TREM2 is an Environmental Sensor, Which Binds to Damage- or Infection-associated Materials, such as Cell Debris, Triggering its Activation**



Multiple studies have shown that TREM2 deficiency is a driver of neurodegeneration, and we believe such studies provide a compelling rationale for therapeutically activating TREM2 signaling to treat neurodegenerative diseases. Loss-of-function mutations of TREM2, such as those associated with AD and other neurodegenerative diseases, disrupt signaling through reduced binding to brain debris and reduced TREM2 levels at the cell surface. The following findings further support the link between TREM2 loss-of-function and disease:

- The importance of TREM2 in the CNS and its involvement in microglial dysfunction comes directly from a devastating human genetic disease called Nasu-Hakola disease (NHD). NHD is an autosomal recessive disorder, caused by a defect in two gene copies, that renders the receptor non-functional due

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to TREM2 or DAP12 mutations. Clinically, NHD is characterized by a rapidly progressive and fatal adult-onset leukodystrophy with a predominantly cognitive phenotype directly caused by microglial dysfunction.

- TREM2 loss-of-function variants are associated with several neurodegenerative diseases, FTD, ALS, and AD. For example, GWAS have shown that a specific mutation in a TREM2 variant (*R47H*) has one of the strongest associations with the development of AD, second in magnitude only to that associated with the apolipoprotein E4 (ApoE4) genotype.
- Functionally, TREM2 mutations drive disease pathology in multiple animal studies, such as studies for AD, stroke, MS, and other white matter diseases. For example, in an AD mouse study, microglial inactivation via TREM2 deletion enhanced the spreading of both pathological  $\beta$ -amyloid and tau proteins.

In our preclinical studies to date, we have not observed any adverse effects resulting from TREM2 agonism. Data in animal studies for AD and other neurodegenerative diseases suggest that chronic treatment with a TREM2 agonist has the potential to ameliorate AD pathology. To our knowledge, no association has been established between gain-of-function mutations for TREM2 and any disease.

**Our Precision Medicine Approach to Development**

We are pursuing a precision medicine approach to developing a broad range of therapeutics for neurodegenerative diseases. We believe that each of the drugs in our pipeline can be developed for multiple neurodegenerative diseases, some of which have very large patient populations. Our development strategy, as shown in Figure 4 below, is to begin with rare, genetically defined diseases for which microglial dysfunction is a key driver of disease pathology and to use findings from these efforts to inform expansion into larger and more common neurodegenerative indications. We believe this iterative, sequential approach is a key differentiator, potentially allowing us to generate clinical PoC efficiently and leverage our initial development programs as well as research by others in pursuing additional neurodegenerative disease opportunities. We also believe we are differentiated by developing both large molecule (i.e., injectable) antibodies as well as small molecule (i.e., orally available) drugs.

**Figure 4: Our Development Strategy**



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We are executing on this approach with our lead pipeline candidate, VGL101, which is initially being developed for the treatment of ALS. ALS has strong genetic, mechanistic, and biochemical associations with microglial dysfunction. The understanding of the genetic defect, molecular pathway deficit, the potential for TREM2 agonism to mitigate the deficit, and the availability of both target engagement and disease biomarkers, serve to increase our confidence in our efforts to rapidly achieve clinical PoC for VGL101 for this disease. We believe the significant unmet need and lack of approved therapies in ALS has the potential to enable a more efficient clinical development path to PoC and regulatory approval, if these trials are successful.

We plan to leverage our work in ALS to target other rare leukoencephalopathies and leukodystrophies, such as cALD. We also plan to evaluate VGL101 in certain genetically defined patient segments of more common neurodegenerative diseases for which TREM2 and/or microglial dysfunction is believed to be a key driver of disease pathology, such as AD.

We are developing an orally-available small molecule that we believe may have potential clinical and commercial advantages, including ease of administration, improved treatment compliance, and use in outpatient settings. We believe our small molecule TREM2 agonist could be particularly impactful for treating diseases with larger patient populations.

We expect to apply learnings from our VGL101 program to inform development of our small molecule TREM2 agonist program in larger and more common neurodegenerative indications. For example, we expect the VGL101 program will provide insights into the mechanism of action and pharmacology of TREM2 agonism, relevant biomarkers as well as help us identify the appropriate patient populations for TREM2 agonist therapies.

### Our Product Development Programs

We currently have two programs aimed at developing microglia-targeted TREM2 agonists for the treatment of neurodegenerative diseases:

- VGL101: A fully human monoclonal antibody, or mAb, targeting human TREM2 for the treatment of rare microgliopathies. We are initially developing VGL101 for the treatment of patients with ALS, a rare, genetically defined, and fatal neurodegenerative disease caused by microglial dysfunction. In multiple preclinical *in vitro* and *in vivo* studies, VGL101 specifically and potently activated TREM2, thereby targeting cells expressing human TREM2 to initiate the cascade of downstream signaling that modulates the neuroprotective and homeostatic functions of microglia. In September 2021, we began a non-interventional natural history study of ALS patients and plan to begin our first-in-human Phase 1 clinical trial with VGL101 in healthy volunteers in [REDACTED] and expect to complete the Phase 1 clinical trial in [REDACTED]. Pending safety results of the Phase 1 trial and discussions with the FDA, we plan to conduct a potentially registrational Phase 2/3 trial in ALS patients. Assuming our Phase 1 trial progresses on our expected timeline, our FDA discussions proceed as currently planned, and we identify an acceptable dose as part of the Phase 1 study, we believe we can initiate the Phase 2 portion of the study as early as [REDACTED]. We have identified a second rare microgliopathy, cALD, in which we plan to submit an IND amendment to our planned IND to conduct a Phase 2 clinical trial in [REDACTED] following the completion of the VGL101 Phase 1 clinical trial in healthy volunteers. We also plan to submit a protocol to the FDA under our planned IND to conduct a Phase 1b biomarker-based, proof-of-mechanism clinical study of VGL101, expected to begin in [REDACTED], in genetically defined AD patients with or without the relevant TREM2 variants to inform subsequent clinical trials with our small molecule agonist.
- A novel, orally available, small molecule TREM2 agonist for common neurodegenerative diseases that are linked to microglial dysfunction. We are initially developing this program for the treatment of genetically defined subpopulations of AD patients. Compounds in our lead series have been observed to be highly CNS penetrant after oral dosing, and similar to VGL101, are specific, potent activators of TREM2. We expect to have a development candidate from our lead series selected by [REDACTED], and, following IND-enabling studies, initiate a first-in-human healthy volunteer study. In addition, we have [REDACTED]

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ongoing screening efforts that have resulted in the discovery of a second series that is built around a different chemical core structure than the lead series. Our second series is currently in the early lead optimization stage.

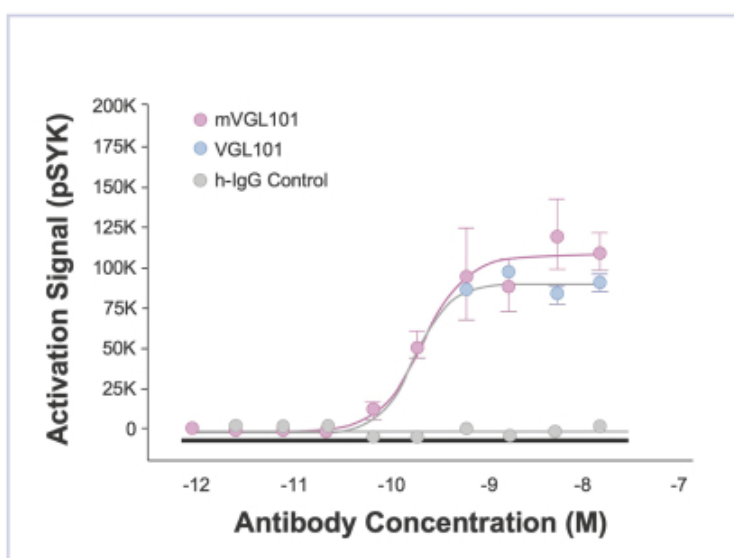
**VGL101**

Our lead candidate, VGL101, is a fully human mAb targeting human TREM2 that was designed to minimize unwanted immune responses and engineered to prevent mediating cellular toxicity.

In multiple preclinical *in vitro* and *in vivo* studies, VGL101 has demonstrated target engagement with TREM2. VGL101 specifically and potently activated TREM2, thereby targeting cells expressing human TREM2 to initiate the cascade of downstream signaling that modulates the neuroprotective and homeostatic functions of microglia.

In *in vitro* studies in human embryonic kidney (HEK) cells engineered with human TREM2 and its receptor partner, DAP12, VGL101 activated TREM2, as measured by phosphorylation of SYK (pSYK) in a dose dependent manner at very low concentrations (i.e., sub-nanomolar levels, below  $1 \times 10^{-9} \text{M}$ ) (Figure 5). Additionally, mVGL101, an engineered version of VGL101 that minimizes immunogenicity in mice, showed comparable TREM2 agonist activity as VGL101.

**Figure 5: VGL101 Activated TREM2 in an *in vitro* Study of HEK Cells**

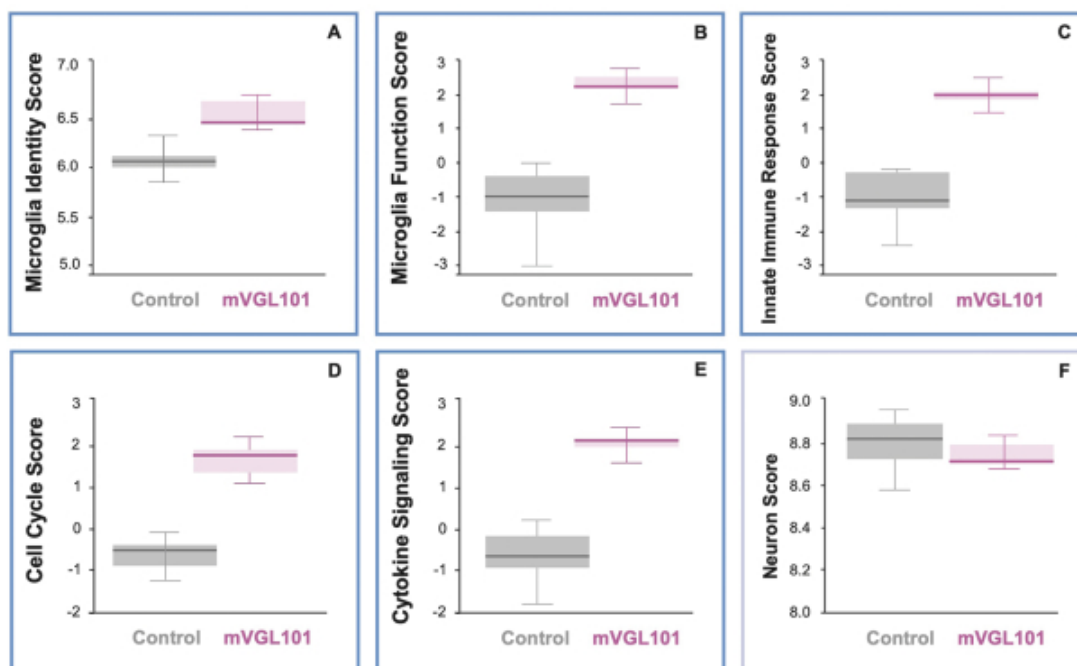


Activation Signal (pSYK): measurement of phosphorylation level of SYK; VGL101 Concentration: molar concentration (M) of VGL101 on a logarithmic scale – -12:  $1 \times 10^{-12} \text{M}$ , -11:  $1 \times 10^{-11} \text{M}$ , -10:  $1 \times 10^{-10} \text{M}$ , -9:  $1 \times 10^{-9} \text{M}$ , -8:  $1 \times 10^{-8} \text{M}$ , -7:  $1 \times 10^{-7} \text{M}$ ; Isotype control: immunoglobulin G acting as negative control.

To validate target engagement, we conducted studies through the genetic engineering of mice in which the human TREM2 gene was “knocked in” to replace the mouse TREM2 gene homolog. Figure 6 below shows that a systemically administered mVGL101 dose increased brain expression of genes associated with microglial identity (homeostatic genes; Figure 6A), microglial function (Figure 6B), innate immune response (neuroprotection genes, Figure 6C), cell cycle (proliferation genes; Figure 6D), and cytokine signaling (neuroprotection genes; Figure 6E) without affecting the gene expression in other cell types found in the brain, specifically neurons (Figure 6F) and astrocytes. Therefore, following systemic administration, mVGL101 has been demonstrated to reach the brain, engage human TREM2, and activate microglia to increase gene programs that define normal functioning states related to damage surveillance, response to damage sensing, and neuroprotection.

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**Figure 6: A Single Dose of mVGL101 Increased the Expression of Genes Associated with Microglial Identity, Microglial Function, Innate Immune Response Cell Cycle and Cytokine Signaling Without Affecting the Gene Expression in Neurons**

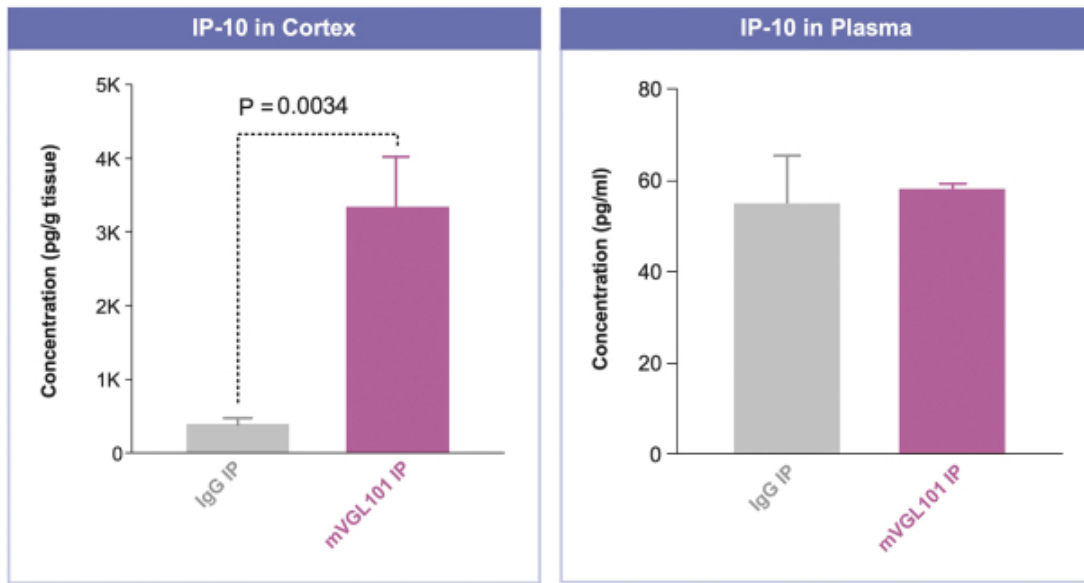


*Y-axes—reflect the level of gene expression changes based on analyses comparing total brain RNA (gene transcripts) isolated from negative control (antibody without TREM2 binding) and mVGL101-treated mice: A: “Microglia Identity Score”—gene expression associated with microglial identity; B: “Microglia Function Score”—gene expression associated with microglial activation; C: “Innate Immune Response Score”—gene expression associated with innate immunity and neuroprotection; D: “Cell Cycle Score”— gene expression associated with cell cycle and proliferation; E: “Cytokine Signaling Score” —gene expression associated with cytokine signaling and neuroprotection; F: “Neuron Score” – gene expression associated with neuronal identity*

In a separate set of experiments designed to confirm target engagement in the CNS, the intraperitoneal (IP) administration of mVGL101 in mice resulted in increased levels in the brain of IP-10, a cytokine secreted only by microglia following TREM2 activation. As shown in Figure 7, mVGL101 did not increase IP-10 levels in plasma, further confirming that target engagement was localized to the CNS alone. We believe this finding suggests that VGL101 administration is unlikely to result in undesirable, off-target effects outside of the brain.

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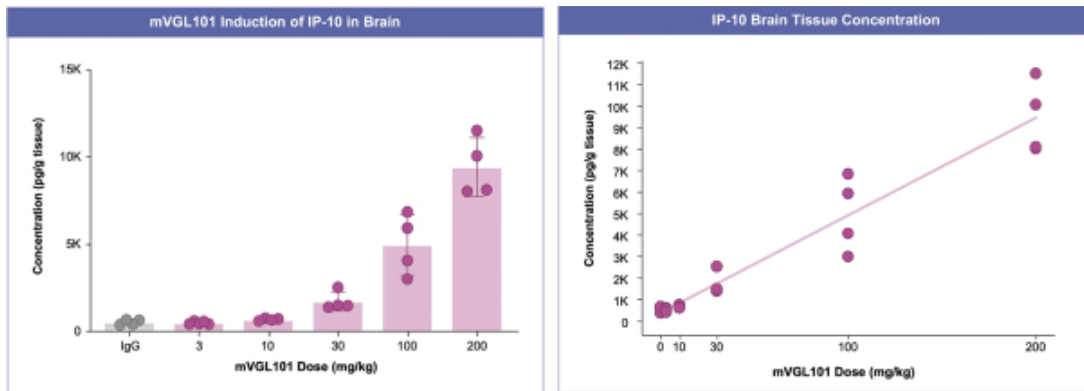
**Figure 7: mVGL101 Productively Activated Microglia in Human TREM2 Knock-in Mice without Peripheral Effects**



Concentration (pg/g tissue): concentration of IP-10 protein (pg) per gram of cortical homogenate; Concentration (pg/ml): concentration of IP-10 protein (pg) per milliliter of plasma; IgG IP—intraperitoneal administration of immunoglobulin G as a negative control; mVGL101 IP—intraperitoneal administration of mVGL101 in a single dose of 100 mg/kg. The IP-10 level for mVGL101 in the Cortex group was determined to be statistically different than that for IgG control with a P value < 0.01.

In addition, we have conducted single ascending dose studies in mice with mVGL101. These studies demonstrated that the administration of mVGL101 produced dose-dependent increases of IP-10 in the brain.

**Figure 8: mVGL101 Dose-dependent CNS Induction of IP-10 (left) and Linearity of mVGL101 Dose-dependent CNS Induction of IP-10 (right)**



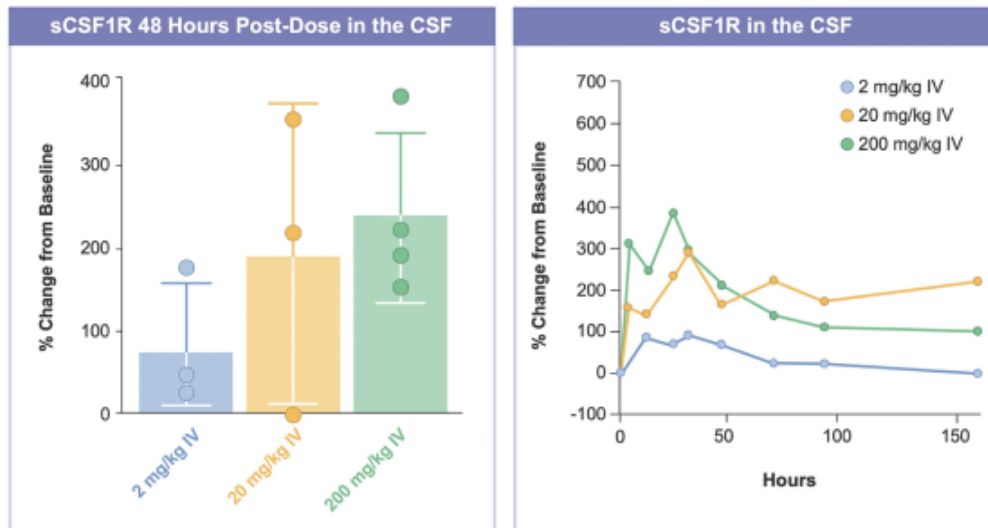
Concentration (pg/g tissue): concentration of IP-10 (pg) per gram of cortical homogenate

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The ability of a therapeutic to cross the blood-brain barrier to reach its target within the brain is critical to neurodegenerative disease drug development and can be a challenge for large molecules such as antibodies. In non-human primates (NHP), we demonstrated that VGL101 was able to penetrate the blood brain barrier at levels in line with those typically observed in prior NHP studies of currently marketed antibody drugs. In the same study, we further demonstrated TREM2 target engagement, showing an increase in levels of sCSF1R over baseline in the cerebrospinal fluid (CSF). This increase in sCSF1R persisted in the CSF for more than six days (150 hours), as shown in Figure 9. We believe that this data, taken together with other preclinical data, suggests that VGL101 can achieve therapeutically relevant concentrations in the brain.

In addition, leukodystrophies, and leukoencephalopathies such as ALSP, are characterized by blood brain barrier disruption, which increases its permeability in areas where the disease is active. We believe such disruption has the potential to facilitate entry of VGL101 from the bloodstream into the brain to targeted areas of active neuro-inflammatory lesions in these diseases.

**Figure 9: Increase in sCSF1R (left) and Sustainable Increase (right) in the CSF Following VGL101 Administration in NHP**



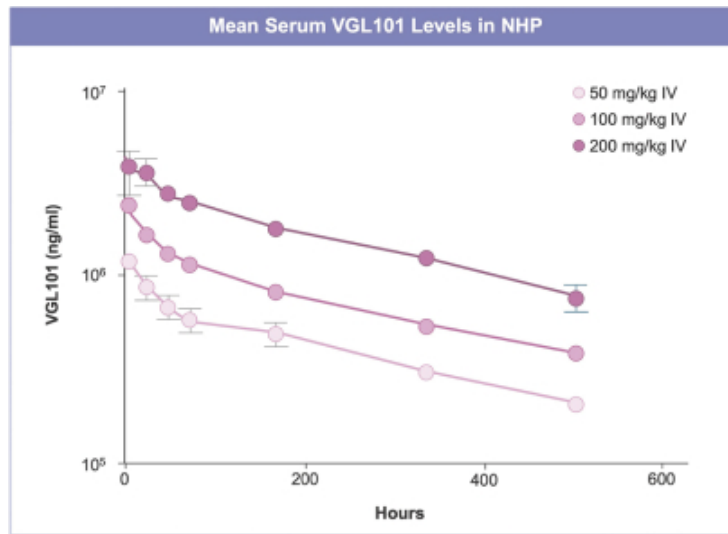
*Percentage Change from Baseline: change in levels of sCSF1R in the CSF expressed as a percentage of baseline levels.*

The pharmacokinetics of VGL101 have been characterized in NHP (Figure 10). Based on these data, the predicted serum half-life in humans is 21 days, which we believe supports monthly intravenous (IV) dosing in patients. In this study, VGL101 was administered intravenously at 3 dose levels, 50 mg/kg, 100 mg/kg, and 200 mg/kg. Blood samples were obtained from each NHP at multiple timepoints after VGL101 administration to monitor the change in systemic VGL101 levels and calculate a half-life for the drug candidate. The data from these experiments will inform the projected dose level for human clinical trials.



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Figure 10: The Pharmacokinetics of VGL101 in NHP Show Predicted Serum Half-life in Humans is 21 Days



The safety profile of VGL101 is currently being assessed in a six-month repeat-dose toxicology study in NHP. An interim report, including data from one month of dosing, will be included in the initial IND submitted to the FDA. Data from this interim report have demonstrated that administration of VGL101 once weekly via IV injection to cynomolgus monkeys at dose levels of 50 mg/kg, 100 mg/kg, and 200 mg/kg was well tolerated through the 29-day interim evaluation. Based on these results, the no-observed-adverse-effect level for the interim time point was considered to be 200 mg/kg/day.

**Our First VGL101 Indication—ALSP**

ALSP is a rare, inherited, autosomal dominant neurological disease with high penetrance. Because ALSP is autosomal dominant, the disease requires a mutation in only one of two gene copies in order to develop. It is caused by a mutation of the *CSF1R* gene and affects approximately 10,000 people in the U.S., with an estimated incidence of about 1,000 to 2,000 new cases annually. ALSP has been diagnosed in countries around the world, with major clusters in North America (U.S. and Canada), Central and Northern Europe, and Asia. ALSP was only recently recognized as a distinct disease in 2012. Initial symptoms of the disease, at times, resemble other neurodegenerative disorders, such as FTD, leading to misdiagnoses. Therefore, we believe the published prevalence figures may underrepresent the ALSP patient population. With the recent availability of genetic testing for *CSF1R* mutations and disease awareness-building efforts by us and patient advocacy groups, we expect the number of diagnoses to increase.

The disease generally presents in adults in their forties, is diagnosed through genetic testing for *CSF1R* mutations and established clinical/radiologic criteria, and is characterized by cognitive dysfunction, neuropsychiatric symptoms, and motor impairment. These devastating symptoms typically exhibit rapid progression and those affected have an average life expectancy of approximately six to seven years following symptom onset.

To our knowledge, there are no approved products for ALSP, and beyond VGL101, there are none in clinical development. Academic investigators have tried hematopoietic stem cell transplantation in a small number of patients. In a published report on seven patients followed for a median period of 11 months, although the investigators reported some improvements, all patients experienced some level of disease progression as well

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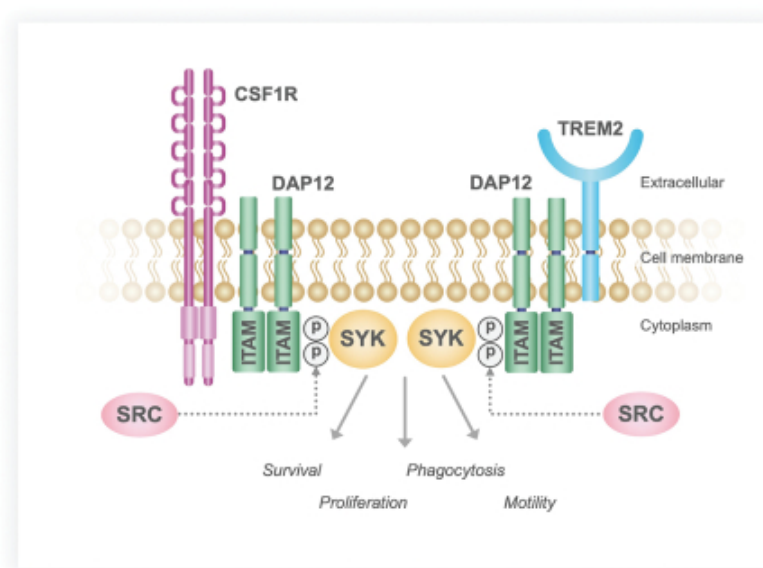
as MRI lesion progression with three patients experiencing graft versus host disease and one death in addition to other side effects. Off-label use of symptomatic treatments (e.g. anti-Parkinsonian drugs) appear to provide minimal benefit to patients with ALSP.

ALSP is caused by loss-of-function mutations in the *CSF1R* gene, which lead to microglial dysfunction. *CSF1R*<sup>+/-</sup> microglia, which lack one copy of functional or wild-type *CSF1R*, fail to perform homeostatic functions, such as phagocytosis and removal of myelin debris, as well as maintenance of synaptic health by axonal pruning. This microglial dysfunction leads to loss of oligodendrocytes, as well as axonal damage, manifesting as demyelination, axonal spheroids, and a devastating neurodegenerative and neuroinflammatory phenotype. ALSP patients experience both microglial loss and dysfunction in the white matter regions of the brain. As disease progression accelerates, the blood brain barrier function becomes compromised and peripheral immune cells infiltrate into the brain, contributing to the pro-inflammatory pathophysiology of ALSP.

**Treatment Rationale for VGL101**

We believe that VGL101 has the potential to be a treatment for ALSP because *CSF1R* and *TREM2* share a common downstream signaling pathway. As shown in Figure 11 below, both cell surface receptors transmit their biological effects, including cell survival and proliferation signals, through the same signaling partner, DAP12/SYK.

**Figure 11: CSF1R and TREM2 Share a Common Signaling Pathway**



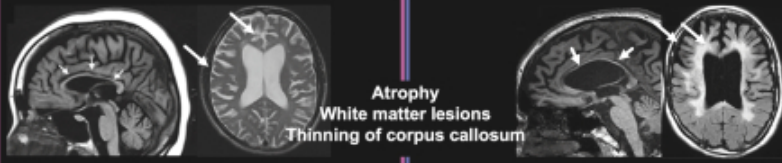
TREM2's signaling for phagocytosis and cell motility is also transmitted through DAP12/SYK. The upstream biology of *CSF1R* and *TREM2* is distinct, with *CSF1R* responding to either of two growth factors, IL34 and CSF1, for cell survival, proliferation, and differentiation, while *TREM2* is activated by a broad array of damage-associated cellular debris, as part of its sensor function.

VGL101 is designed to increase signaling through DAP12/SYK to compensate for *CSF1R* loss-of-function by mitigating microglial dysfunction. Human genetics have demonstrated the impact of deficient signaling through *TREM2* or DAP12/SYK in the rare, fatal genetic disease, NHD, which is caused by mutations in *TREM2*

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or *DAP12*, resulting in the complete loss of their signaling function. As seen in Figure 12 below, the disease presentation, imaging findings, and brain pathology of ALSP and NHD are similar, highlighting that converging, dysfunctional biochemical pathways produce similar pathobiology. For example, both NHD and ALSP are fatal, rapidly progressing disorders that produce FTD-like symptoms that first appear in the thirties in the case of NHD, and forties for ALSP. Both are characterized by chronic loss of myelin and loss of axons, nerve fibers that transmit electrical signals away from nerve cells and which are the primary constituents of white matter. The white matter brain lesions resulting from both diseases have a similar distribution as shown by the arrows in Figure 12.

**Figure 12: TREM2 and CSF1R Mutations Result in Diseases with Similar Pathology**

	NHD	ALSP
Similar Disease Presentation	FTD-like presentation in the 30s Dementia and death by age 50 years Progression through Stages I-IV	FTD-like phenotype in the 40s Average time to death 6.8 years Progression through Stages I-IV
Similar Imaging Findings	 <p>Atrophy White matter lesions Thinning of corpus callosum</p>	
Similar Brain Pathology	<p>Chronic demyelination Axonal loss Sparing of subcortical U-fibers (nerves connecting adjacent areas of brain) Involvement of the pyramidal tracts (nerve fibers extending from brain cortex to spinal cord or brain stem) Dilated axons</p>	
Genetic Driver of Disease	<i>TREM2</i> $-/-$ or <i>DAP12</i> $-/-$	<i>CSF1R</i> $+/-$
Signaling Convergence	DAP12- Essential for CSF1R & TREM2 Signaling	

*Bianchin et al, Nat Rev Neurol. 2010. Coomans, C., et al. Acta Neurologica Belgica. 2018, Konno et al, Neurology 2018. Oyanagi et al, Brain Pathol. 2017*

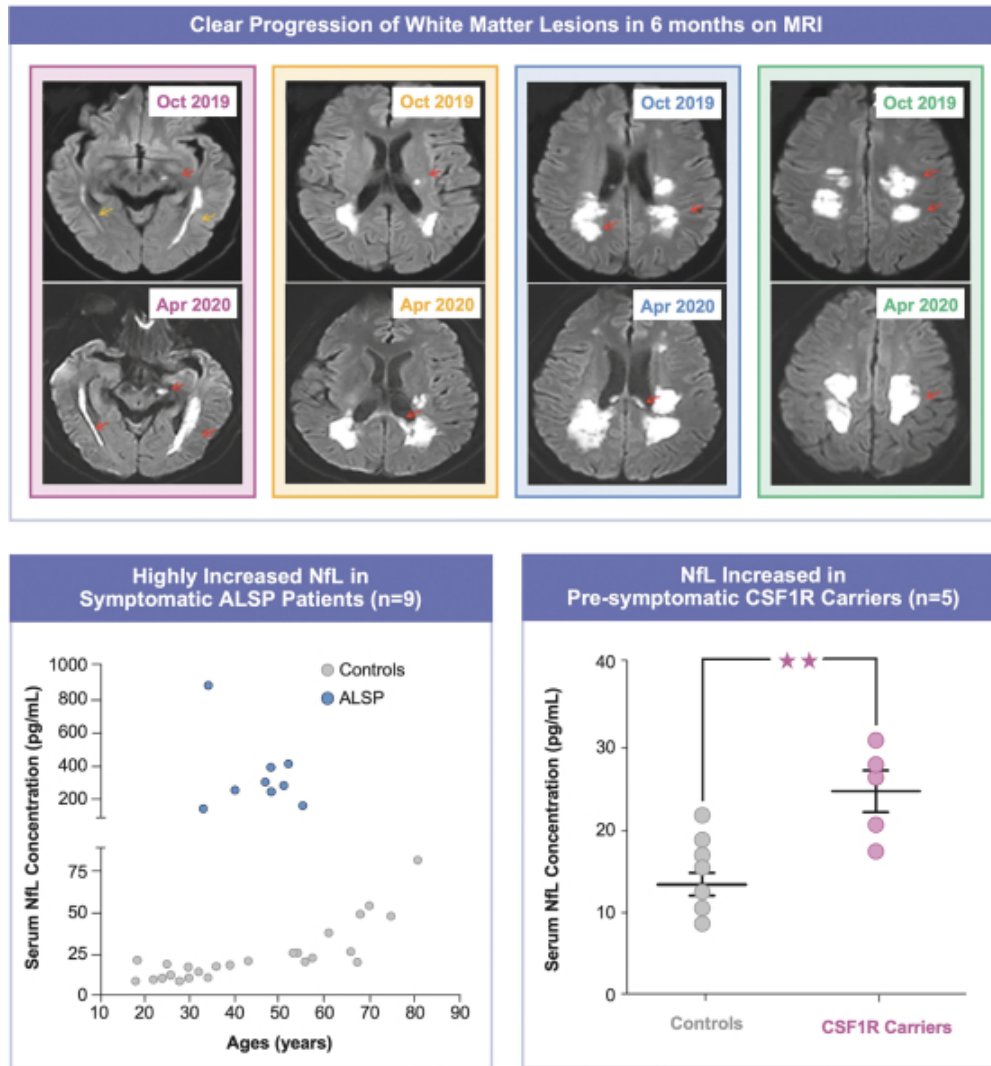
As seen below in Figure 13, we believe that there are quantifiable, disease-associated biomarkers which correlate with disease progression and could be used to detect treatment effects in ALSP clinical trials. These include MRI of brain lesions, which appear to correlate with disease progression, and fluid biomarkers such as NfL, an axonal protein for which detection in the blood or CSF is quantitatively indicative of white matter degeneration. Deep phenotype maps based on digital sensing technologies of ALSP patients could capture therapeutic responsiveness to any experimental treatment paradigms in the future. We believe the change in NfL levels from baseline is a potential therapeutic biomarker. NfL protein levels in the CSF have been shown to be more than 30-fold higher in ALSP patients than in age-matched controls and approximately 14-fold higher in serum. Serum NfL protein levels have reported to be significantly higher, approximately two-fold, in young presymptomatic CSF1R mutation carriers than age-matched healthy subjects. To our knowledge, the magnitude of NfL increase in the serum and CSF of ALSP patients is higher than in any other neurodegenerative disease described to date. We believe that these robust NfL levels will make them readily quantifiable with lower

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variability than has been observed in other clinical programs, with changes from baseline levels indicative of a therapeutic response. By contrast, patients with AD, ALS, FTD, MS, Lewy body dementia, and progressive supranuclear palsy have been shown to have CSF NfL levels approximately 2.3-fold, 7.2-fold, 3-fold, 2.1-fold, 2.8-fold, and 3.5-fold higher than healthy controls, respectively.

We believe that the availability of such biomarkers and their relation to disease progression will provide us with early indicators of VGL101's therapeutic response and in human studies may support demonstration of PoC. Along with the high unmet need in the disease, we believe the availability of these quantifiable biomarkers make ALSP an attractive initial indication for VGL101.

**Figure 13: ALSP Has Disease Biomarkers That Can Be Used in Clinical Development Including MRI (Top Panel) and NfL (Bottom Panel)**



Oyanagi et al, *Brain Pathol.* 2017; Lakshmanan et al, *Neurol Genet.* 2017. Hayer et al, *Neurology* 2018. Kang et al. *Radiol Case Rpts* 2019; Huang et al. *BMC Neurology* 2021.

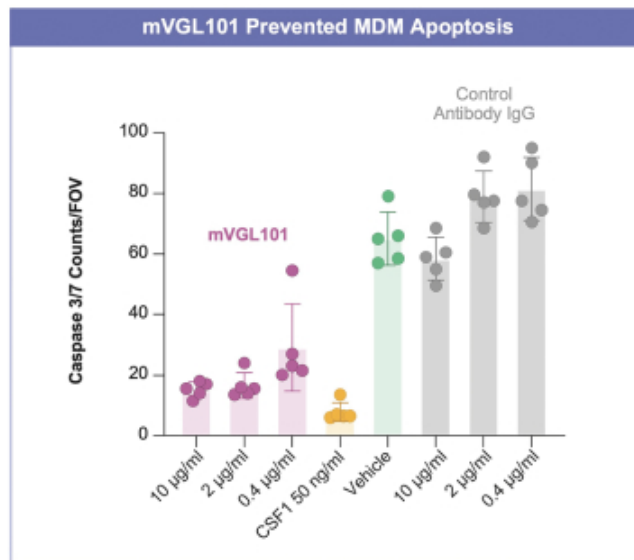
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We have demonstrated PoM in *in vitro* studies that model CSF1R loss-of-function in ALSP. For these studies, we used a system for differentiation of macrophages, which are innate immune cells outside of the brain that have similar functions as microglia. We established human monocyte-derived macrophage (MDM) culture systems using monocytes, immature pre-macrophage cells isolated from human blood, that are dependent on the growth factor CSF1 for survival and differentiation into more mature cells. In the first study illustrated in Figures 14a and 14b below, we observed that VGL101 rescued cultured differentiating monocytes cells from depletion of CSF1.

In this study, monocytes were co-cultured with CSF1 to induce differentiation into macrophages via DAP12/SYK signaling. When CSF1 is removed from the culture, the cells die by a process called apoptosis or programmed cell death, mimicking CSF1R loss-of-function. When mVGL101 was used to mediate DAP12/SYK signaling through TREM2 activation, and thus compensate for the missing CSF1, the cells survived. Specifically, as shown in Figure 14a, the levels of apoptosis markers (Caspase3/7) in cultures treated with mVGL101 are similar to those of the CSF1-treated culture, whereas the levels for cultures treated with vehicle and control antibody are markedly higher.

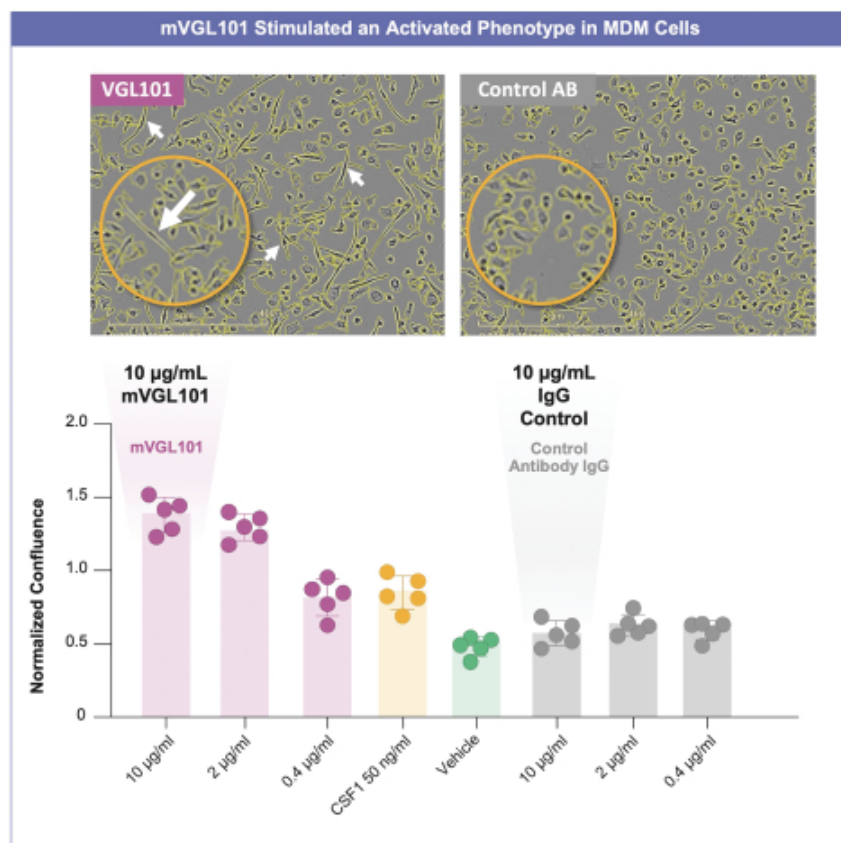
mVGL101 also enabled the transition to the MDM activated phenotype, as demonstrated both by the increased confluence, a measure of cell shape changes based on the area occupied by cells within a field of view, and by the motility of mVGL101-treated cells as compared to those treated with the control antibody, as shown in the Figure 14b below. The macrophage differentiation transition induced by mVGL101 was demonstrated by monitoring cell shape and cell motility changes using microscopic video image captures (Figure 14b) and video, respectively. These images show that the mVGL101-treated cultures contained numerous elongated cells that are transitioning to a more mature state (characterized by elongated cell processes), while the negative control treated cells remained spheroid and without elongated processes. The videos of these cultures over 48 hours show that mVGL101 treated cultures contained numerous motile cells that migrate across the field of view indicating TREM2-mediated activation. No activation was observed in the control antibody cultures.

**Figure 14a: TREM2 Agonism Mediated by mVGL101 Compensated for CSF1R Loss-of-Signaling and Prevented Apoptosis of MDM, Providing *In Vitro* PoM for CSF1R Deficiency in ALSP**



Caspase3/7 Counts/FOV: Number of Cells Staining Positive for Activated Caspase 3/7 within a Field of View (FOV)

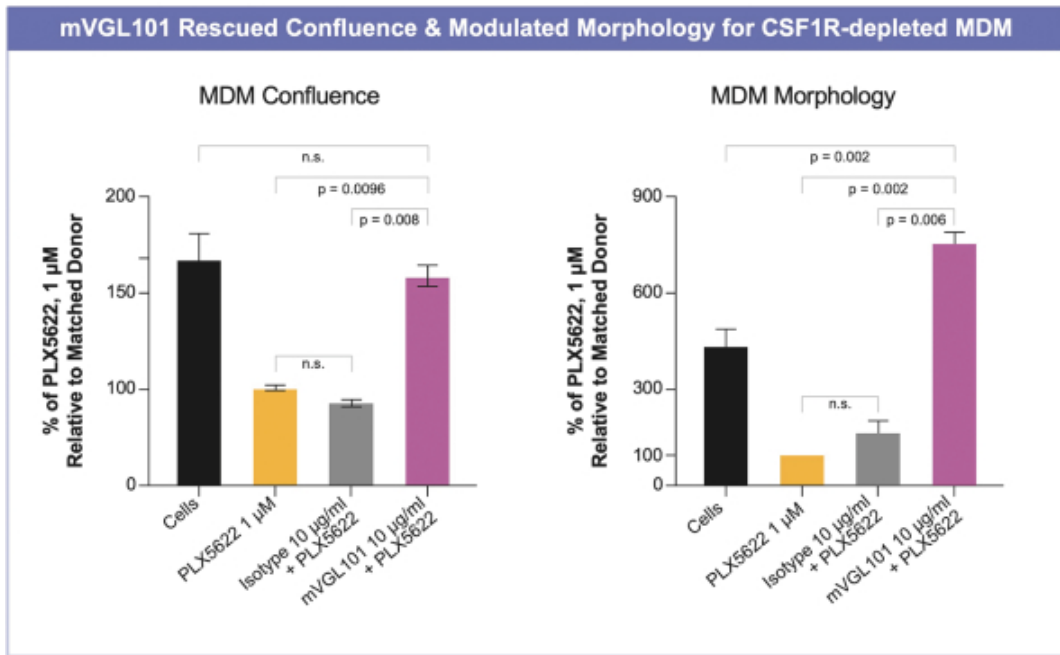
**Figure 14b: mVGL101 Stimulated a Transition to an Activated Phenotype in MDM Cells and Induced a Morphology Indicative of a Transition to a Motile and Phagocytic State (White Arrow) Indicating an Increased Ability to Clear Debris from Dead and Dying Cells**



In the second study illustrated in Figures 15a and 15b, we demonstrated mVGL101 rescue of CSF1R deficiency using PLX5622, a highly selective CSF1R inhibitor. MDM cells treated with PLX5622 alone displayed significantly reduced confluence, impaired ability to differentiate, and a dysfunctional microscopic phenotype compared to untreated cells. These changes are similar to what was observed with CSF1 withdrawal in the first experiment described above. Treatment of the PLX5622-treated cultures with mVGL101 rescued the cells from CSF1R inhibition and supported survival, as measured by an automated confluence algorithm (Figure 15a) and promoted morphological changes toward an elongated and motile phenotype, as measured by microscopic quantification of cell shape (Figure 15b), consistent with an activated cell type.

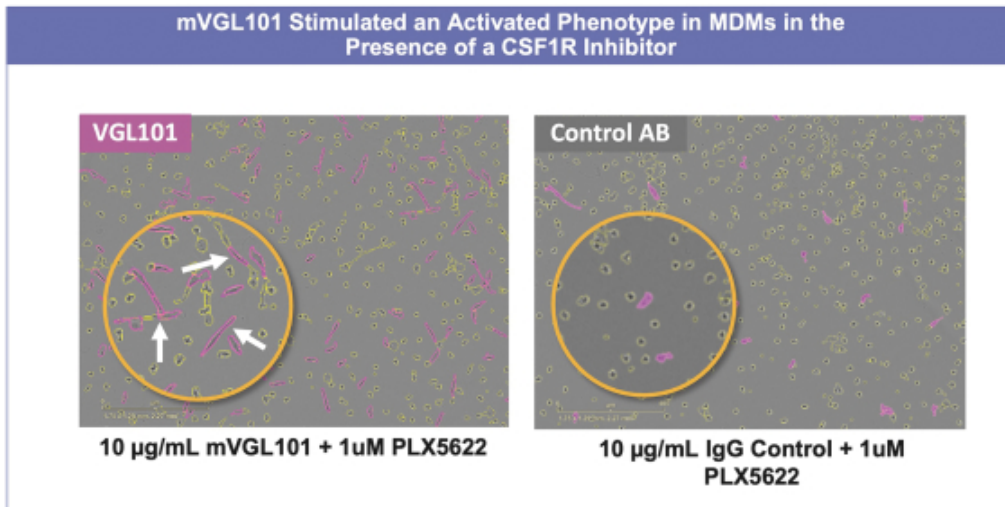
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Figure 15a: mVGL101 Rescued Confluence and Modulated Morphology for CSF1R-Depleted MDM



Percentage of PLX5622, 1 μM Relative to Matched Donor: Level of MDM Confluence (left) or Morphological Changes (right) Expressed as a Percentage of Untreated Cells from a Matched Donor; n.s. – not statistically significant.

Figure 15b: mVGL101 Stimulated a Productively Activated Phenotype in MDMs in the Presence of a CSF1R Inhibitor



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We have not employed available *in vivo* CSF1R-deficient mouse models to support the case for clinical development of VGL101 in ALSP because we believe these models do not adequately recapitulate human disease. Additionally, the available *CSF1R*<sup>±</sup> mouse models have low penetrance (approximately 50 percent) and do not display symptoms for 12-18 months after birth, which make the model very challenging to utilize.

### **Clinical Development Plan**

In September 2021, we began a non-interventional natural history study of ALSP patients and plan to begin our first-in-human Phase 1 clinical trial with VGL101 in healthy volunteers in [REDACTED] and expect to complete the Phase 1 clinical trial in [REDACTED]. Pending safety results of the Phase 1 trial and discussions with the FDA, we plan to conduct a potentially registrational Phase 2/3 trial in ALSP patients. Assuming our Phase 1 trial progresses on our expected timeline, our FDA discussions proceed as currently planned, and we identify an acceptable dose as part of the Phase 1 study, we believe we can initiate the Phase 2 portion of the study as early as [REDACTED]. We have identified a second rare microgliopathy, cALD, in which we plan to submit an IND amendment to our planned IND to conduct a Phase 2 clinical trial in [REDACTED] following the completion of the VGL101 Phase 1 clinical trial in healthy volunteers. We also plan to submit a protocol to the FDA under our planned IND to conduct a Phase 1b biomarker-based, PoM clinical study of VGL101, expected to begin in [REDACTED], in genetically defined AD patients with or without the relevant TREM2 variants to inform subsequent clinical trials with our small molecule agonist.

- **Natural History Study:** We began this study in September 2021 with the objectives of further understanding the phenotype and natural course of the disease, the patient journey and treatment paradigm, as well as further developing, and evaluating biomarkers and potential clinical outcome measures. One of the most important objectives for the natural history study is to serve as a potential synthetic control arm which will function as a comparator group in our interventional trial. Patients who participate in our natural history study may also participate in our interventional clinical trials.
- **First-In-Human Phase 1 Study:** This clinical trial will be a dose escalating (single and multiple ascending dose (SAD/MAD)) study of VGL101 in healthy volunteers, including subjects of various ethnic backgrounds. This study is designed to evaluate safety and tolerability as well as measure biomarkers to confirm target engagement such as sCSF1R, sTREM2 and induced microglial factors found in CSF. This study will provide a foundation for clinical trials of VGL101 in patients with ALSP as well as with other neurodegenerative disorders. We plan to initiate this clinical trial in the U.S. in [REDACTED] and expect to complete it in [REDACTED].
- **Phase 2/3 Clinical Trial:** Pending safety results of the Phase 1 trial and discussions with the FDA, we plan to initiate a potentially registrational Phase 2/3 study in ALSP patients. Assuming our Phase 1 trial progresses on our expected timeline, our FDA discussions proceed as currently planned, and we identify an acceptable dose as part of the Phase 1 study, we believe we can initiate the Phase 2 portion of the study as early as [REDACTED]. The Phase 2 part of the trial would be a PoC study with the objectives of:
  - evaluating the safety and tolerability of VGL101 in patients with ALSP;
  - evaluating the pharmacokinetics of VGL101 in patients with ALSP;
  - assessing fluid, such as NfL, and imaging, such as MRI, biomarkers of disease progression in patients with ALSP; and
  - demonstrating fluid and brain imaging biomarker efficacy.

In addition, we plan to generate data from VGL101 clinical trials to inform our TREM2 small molecule agonist program for AD. Specifically, we plan to explore whether AD susceptibility genes related to microglial dysfunction confer differential responses to VGL101 as part of the VGL101 Phase 1 SAD/MAD study, as noted above.



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### ***Patient Engagement and Recruitment***

We have created a strong global network of KOLs, centers of excellence, and genetic counseling practices that each treat ALSP patients and work with families affected by the disease. These span all geographies but are mainly focused in areas where ALSP clusters have been identified (North America, Europe, and Asia).

We have launched the world's first patient-facing ALSP informational website ([www.alspinfo.com](http://www.alspinfo.com)) and actively support the first and only patient advocacy organization dedicated to ALSP, the Sisters' Hope Foundation ([www.sistershopefoundation.com](http://www.sistershopefoundation.com)). Strong partnerships with patient organizations like Sisters' Hope Foundation enable us to learn in real-time as more patients are diagnosed with ALSP. We have also partnered with genetic testing companies to increase disease awareness and help with patient engagement for upcoming clinical trials.

We are also partnering with a larger leukodystrophy umbrella organization, the United Leukodystrophy Foundation, as well as rare disease umbrella organizations such as NORD, Global Genes, and the Every Life Foundation, to provide disease education and raise awareness of ALSP.

We have formed a PCAC consisting of members who can provide a well-rounded patient and caregiver perspective. Members of the PCAC include a patient who has received a transplant, an asymptomatic patient, a parent of a patient, a caregiver, and a genetic counselor. The PCAC will offer guidance on elements of the patient experience to help us embed the patient voice into the clinical infrastructure to support patient identification, recruitment, and retention.

We play a central role in the development of an ALSP KOL network to support global collaboration. We intend for this organized KOL network to focus on streamlining and building consensus around disease status definitions and disease measurement tools, as well as working on ways to educate neurologists to recognize and test for the relevant gene mutation.

To date, through these efforts, we have identified a significant number of symptomatic, pre-symptomatic, and asymptomatic carriers of *CSF1R* mutations, which we anticipate will facilitate recruitment into our clinical program.

### ***Indication Expansion in Rare Leukodystrophies***







According to the National Institute of Neurological Diseases and Stroke, leukodystrophies include more than 50 rare, genetic disorders that selectively affect the CNS' white matter, and are typically caused by defects that affect its generation, maintenance, and repair. Collectively, they afflict approximately 99,000 people in the U.S.

We plan to pursue additional indications in this space, where a breakdown of healthy microglial function acts as either a driver or a contributor to the neurodegenerative process. Operationally, our decisions are informed by the availability of translational tools, overall disease profile, medical need and clinical development tractability, competition, and commercial feasibility. From a mechanistic perspective, our approach is to initially target indications which TREM2 agonists can potentially address.

We have identified several white matter diseases as potential therapeutic opportunities that share similar characteristics with ALSP and appear to be driven by either peroxisomal or lysosomal deficits (Table 1). These disorders include cALD, MLD, and Krabbe. Our hypothesis is that we can restore microglial function resulting from loss-of-function mutations with TREM2 agonists in these diseases.

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Table 1: Additional Leukodystrophies for Potential Pipeline Expansion

	 Epidemiology	 Genetics	 Pathology	 Unmet Medical Need	 Diagnosis	 Treatment
<b>cALD</b>	Rare ~7-8K in U.S. & EU	<i>ABCD1</i> mutations	Progressive cerebral inflammatory neurodegeneration	Significant Vegetative state: 2 yrs Death: 10 yrs	Blood test Newborn screening	No approved tx HSCT in limited pts
<b>MLD</b>	Rare ~2-8K in U.S. & EU	<i>ASA</i> and <i>PSAP</i> mutations	Progressive cerebral inflammatory neurodegeneration	Significant Infantile form – rapid progression	Clinical/Imaging Genetic screening	No approved tx HSCT in limited pts
<b>Krabbe</b>	Rare ~1/100K newborns in U.S.	<i>GALC</i> mutations	Progressive cerebral inflammatory neurodegeneration	Significant Infantile form – rapid progression	Enzymatic testing Limited newborn screening	No approved tx HSCT in limited pts

HSCT: Hematopoietic stem cell transplantation

We have selected cALD as the first follow-on indication because microglial dysfunction in this disease is more thoroughly defined than it is in other indications. cALD is the severe, progressive neurodegenerative form of X-linked adrenoleukodystrophy (X-ALD), a rare metabolic disorder affecting the microglia. The birth prevalence of X-ALD is estimated at one in 3,878 males in a study on newborn screening for this disease in 2017.

Approximately 37-47% of males diagnosed with ALD will progress to cerebral ALD with a majority in their childhood and adolescent years. A smaller number of adult men with adrenomyeloneuropathy (AMN), the slowly progressive adult form of x-ALD, will also develop cALD. cALD is characterized by progressive cerebral demyelination and inflammation in the white matter of the brain leading to a rapidly progressive neurologic decline and resulting in severe loss of neurologic function and death in most untreated patients.

Specifically, cALD is caused by loss-of-function mutations in the *ABCD1* gene, which encodes a transporter protein for very long chain fatty acids (VLCFAs) into peroxisomes, intracellular organelles critical for lipid metabolism. *ABCD1* loss-of-function mutations result in accumulation of VLCFAs and lead to oxidative stress, as well as energetic and functional microglial deficits resulting in inflammatory demyelination and/or axonal injury and blood brain barrier dysfunction. *ABCD1* is highly expressed in microglia where *ABCD1*-deficiency leads to well-described microglial dysfunction. In cALD, we believe patient availability to participate in our clinical trial will be facilitated by expanded newborn genetic screening in the U.S., disease awareness, endpoint qualification and the mature nature of patient advocacy efforts.

We believe VGL101 has the potential to reverse microglial dysfunction caused by *ABCD1* mutations by activating the TREM2 pathway to transition microglia to DAM and lipid associated microglia (LAM), microglia associated with removal of lipid debris. The resulting DAM and LAM would promote cell stimulation, proliferation, increased survival, and maintenance of an anti-inflammatory environment, while enhancing phagocytosis of myelin debris and VLCFAs. We plan to submit an IND amendment to our planned IND to begin

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a Phase 2 clinical trial in ██████████ in cALD following the completion of the VGL101 Phase 1 clinical trial in healthy volunteers.

**Small Molecule TREM2 Agonists for the Treatment of Neurodegenerative Diseases**

We are advancing our novel, orally-available, small molecule TREM2 agonist for the treatment of more common neurodegenerative diseases, beginning with genetically defined AD populations associated with *TREM2* gene variants. An orally available and highly CNS penetrant small molecule has many potential clinical and commercial advantages in large chronic indications, including ease of administration and use in outpatient settings. We also intend to explore the potential of our small molecule agonist for the general AD population, if clinical data support this approach.

***Our Small Molecule TREM2 Agonist Program***

We have in-licensed more than 1,000 small molecule TREM2 agonist compounds resulting from a robust hit-to-lead and lead optimization program. Expanding on this program, we have synthesized more than 300 additional compounds.

We have demonstrated in preclinical studies that compounds in our lead series are highly selective, potent activators of TREM2, and which we believe are highly CNS penetrant to facilitate blood brain barrier crossing after oral dosing. In addition, we have ongoing screening efforts that have resulted in the discovery of a second series that is built around a different chemical core structure than the lead series. Our second series is currently in the early lead optimization stage.

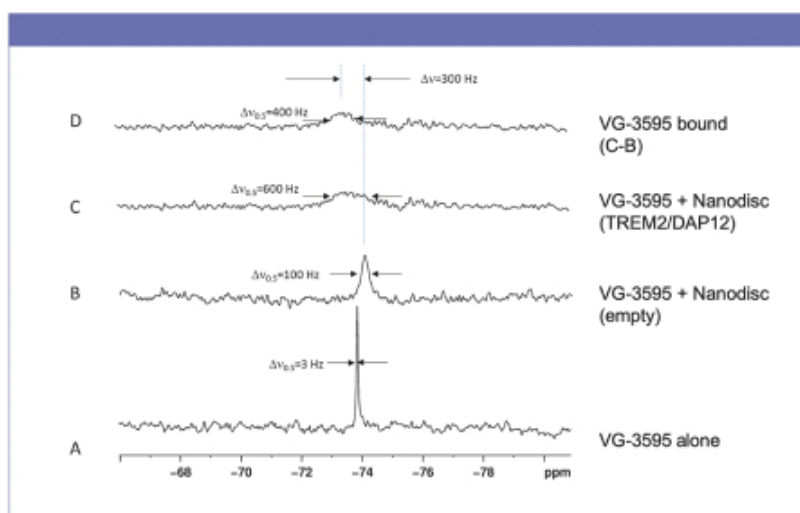
We believe the physical and chemical attributes of the small molecule candidates in our lead series make them promising for further drug development, including solubility and oral bioavailability, that we believe are suitable for conventional formulation into a drug product. Based on our analysis, preliminary safety screening with the compounds in our lead series in standard assays has not identified any major off target binding, cardiac toxicity, as measured by a human cardiac receptor assay, called hERG, or drug metabolism issues, as measured by liver metabolism assays, known as cytochrome P450 (CYP) induction and time dependent cytochrome P450 inhibition (CYP TDI). We expect to select a development candidate from our lead series in ██████████ and, following IND-enabling studies, initiate a first-in-human healthy volunteer study.

Data collected from single oral dose studies in human *TREM2* knock-in mice have shown that our prototypical small molecule TREM2 agonists recapitulated many of the gene expression changes and much of the *IP-10* induction mediated by a single dose of VGL101.

*In vitro* experiments have been conducted with membrane-like structures, called nanodiscs, into which TREM2 and DAP12 have been engineered. Direct binding between a radioisotope-labeled prototype small molecule compound VG-3595 and the membrane associated TREM2 is determined using nuclear magnetic resonance (NMR) analyses. Figure 16 below shows NMR data from a series of experiments which, taken together, indicated that VG-3595 directly bound TREM2-containing nanodiscs with high affinity. The NMR data for VG-3595 incubated with an empty nanodisc (B) is subtracted from the NMR data for VG-3595 incubated with TREM2/DAP12 loaded nanodiscs (C), and the difference represents specifically bound VG-3595 (D).

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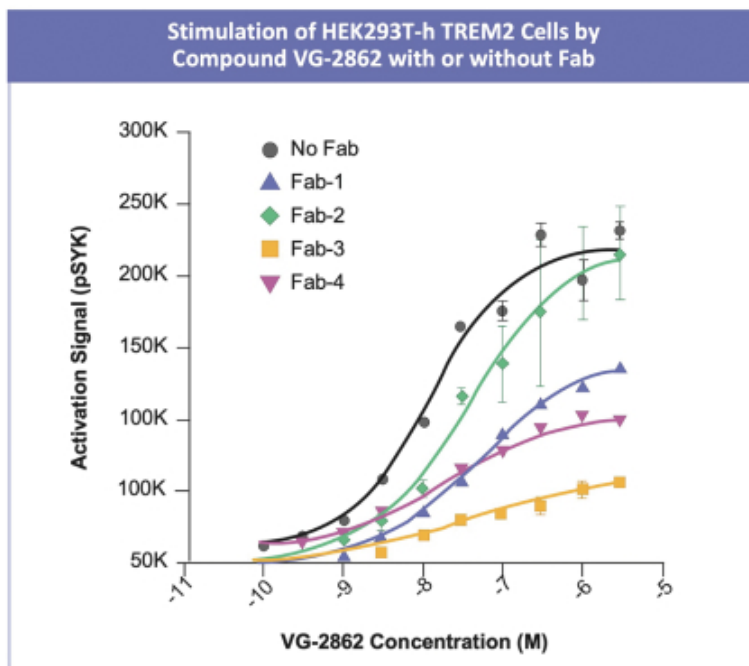
Figure 16: Small Molecule TREM2 Agonist Target Engagement with TREM2 Confirmed *In Vitro*



In other experiments using engineered cell lines overexpressing human TREM2 and human DAP12 for the binding target, we have shown that antibody fragments (Fabs) that bind to TREM2, but cannot trigger TREM2 activation, inhibited small molecule mediated TREM2 activation by another prototype TREM2 agonist compound, VG-2862 (Figure 17). Taken together, we believe the NMR binding data and the antibody fragment competition data are encouraging evidence for direct interactions between our prototype small molecule TREM2 agonists and TREM2.

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Figure 17: Anti-TREM2 Fabs Inhibit Small Molecule Agonist Activity

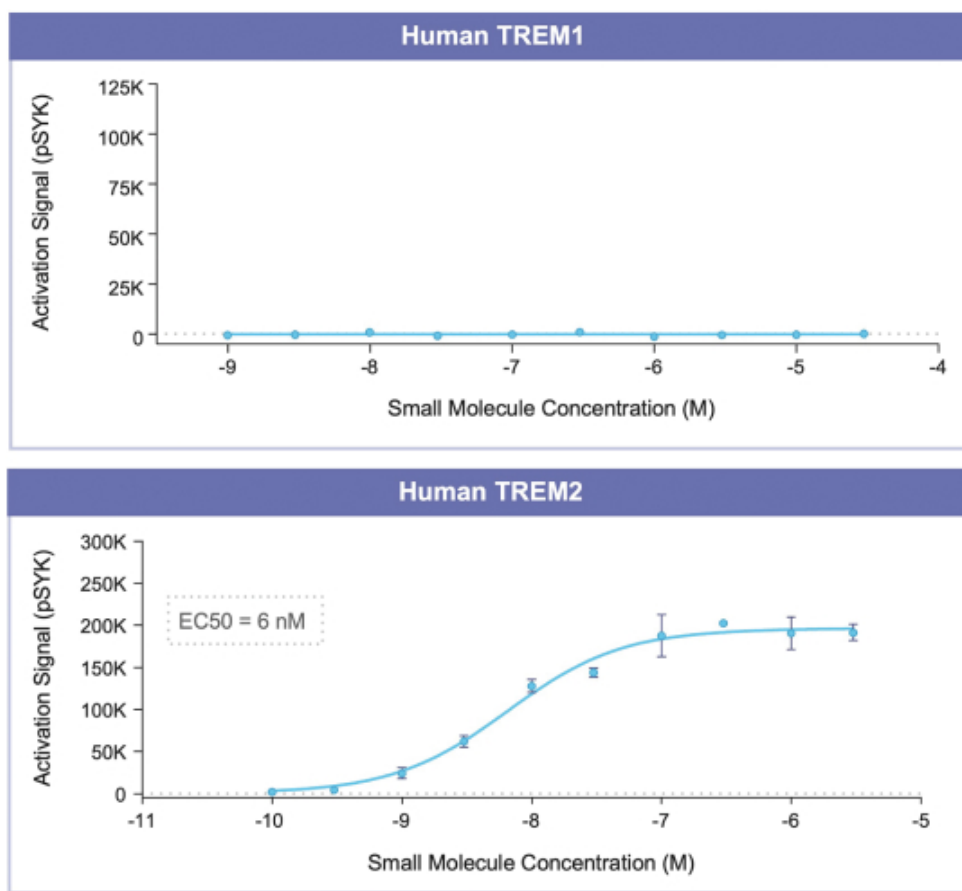


Activation Signal (pSYK): Measurement of Phosphorylation Level of SYK; VG-2862 Concentration: Molar Concentration (M) of VG-2862 on a Logarithmic Scale—11: 1x10<sup>-11</sup>M, -10: 1X10<sup>-10</sup>M, -9: 1X10<sup>-9</sup>M, -8: 1X10<sup>-8</sup>M, -7: 1X10<sup>-7</sup>M, -6: 1X10<sup>-6</sup>M, -5: 1X10<sup>-5</sup>M; No Fab: no Fab added; Fab 1-4: Fab 1 to 4 added

We have demonstrated the selectivity of prototype small molecules in experiments comparing HEK cells engineered with either human TREM2 or human TREM1, both of which use the adaptor DAP12 for downstream signaling. In these studies, prototype TREM2 agonists generated a SYK activation signal only in cells expressing human TREM2 but not in cells expressing human TREM1, as shown in Figure 18 below.

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Figure 18: Small Molecule Agonist Selective for human TREM2

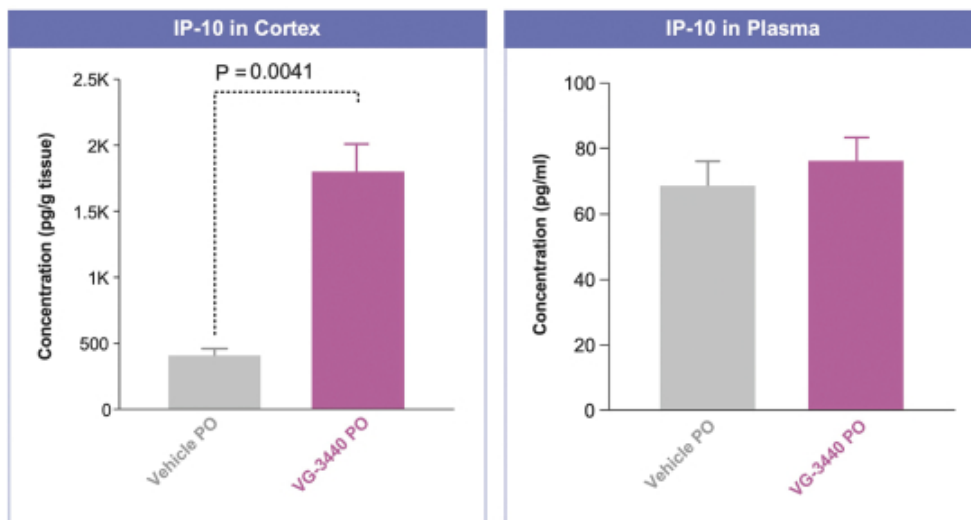


Activation Signal (pSYK): Measurement of Phosphorylation Level of SYK; Small Molecule Concentration: Molar Concentration (M) of Prototype Small Molecule TREM2 Agonist on a Logarithmic Scale – -11: 1x10<sup>-11</sup>M, -10: 1X10<sup>-10</sup>M, -9: 1X10<sup>-9</sup>M, -8: 1X10<sup>-8</sup>M, -7: 1X10<sup>-7</sup>M, -6: 1X10<sup>-6</sup>M, -5: 1X10<sup>-5</sup>M; EC50: Concentration of a Compound Where 50% of Its Maximal Effect (SYK phosphorylation) is Observed

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We have also conducted *in vivo* studies in human *TREM2* knock-in mice analogous to those shown above for VGL101. Oral dosing with a prototype small molecule agonist (VG-3440) demonstrated increases in the microglial biomarker, IP-10, in the brain after 24 hours. There were no increases in plasma IP-10 concentrations, indicating selective microglia targeting in the brain (Figure 19).

**Figure 19: Prototype Small Molecule TREM2 Agonist Productively Activated Microglia in Human TREM2 Knock-in Mice without Peripheral Effects**

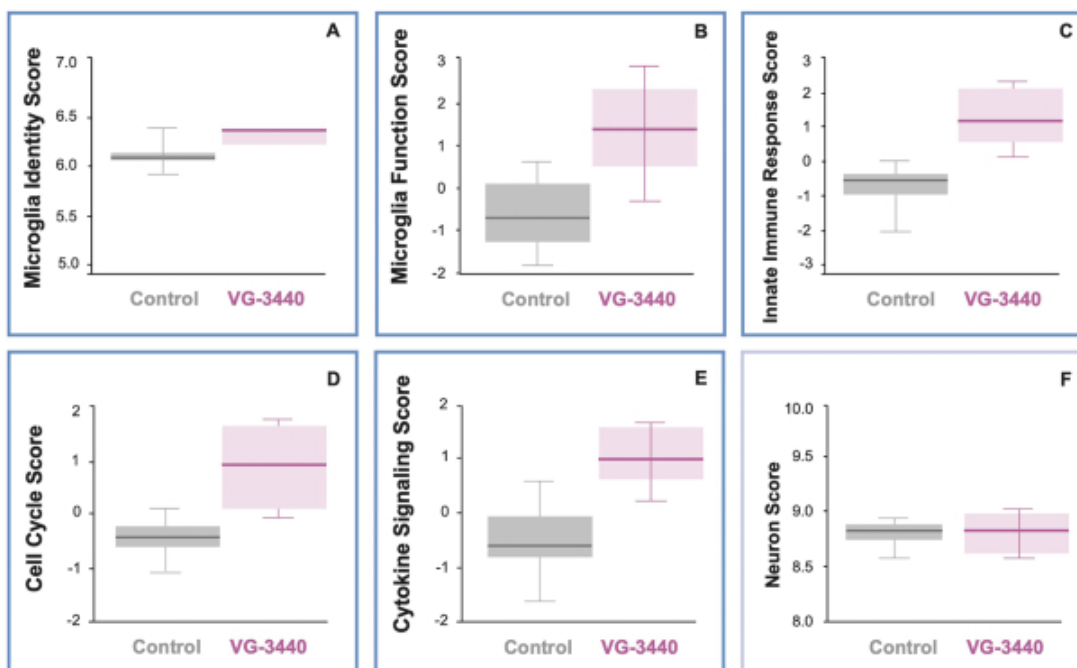


*Concentration (pg/g tissue): Concentration of IP-10 Protein (pg) Per Gram of Cortical Homogenate; Concentration (pg/ml): Concentration of IP-10 protein (pg) Per Milliliter of Plasma; Vehicle PO—Oral Administration (PO—per os) of Inactive Compound; VG-3440 PO: Oral Administration of Prototype Small Molecule TREM2 at 50 mg/kg in Two Doses. The IP-10 level for VG-3440 in Cortex group was determined to be statistically different than that for the Vehicle with a P value < 0.01.*

In the human *TREM2* knock-in mouse model, we demonstrated that our prototype small molecule TREM2 agonists selectively increased the expression of genes related to microglial identity, microglial function, innate immune response, cell cycle (proliferation genes), and cytokine signaling (neuroprotection genes) in a similar manner to what we have demonstrated for VGL101, as shown in Figure 20 below. There was no increase in either neuronal or astrocytic gene expression following dosing with the small molecule TREM2 agonist, further demonstrating microglia-specific targeting through TREM2. Therefore, similar to VGL101, our small molecule TREM2 agonist prototype, VG-3440, reached the brain, engaged its target, human TREM2, and activated microglia to increase gene programs that define normal functioning states related to damage surveillance, response to damage sensing, and neuroprotection.

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**Figure 20: A Single Dose of VG-3440 Increased the Expression of Genes Associated with Microglial Identity, Microglial Function, Innate Immune Response, Cell Cycle, and Cytokine Signaling, Without Affecting the Gene Expression in Neurons**



Y-axes – reflect the level of gene expression changes based on analyses comparing total brain RNA (gene transcripts) isolated from negative control (antibody without TREM2 binding) and mVGL101-treated mice: A: “Microglia Identity Score”—gene expression associated with microglial identity; B: “Microglia Function Score”—gene expression associated with microglial activation; C: “Innate Immune Response Score”—gene expression associated with innate immunity and neuroprotection; D: “Cell Cycle Score”—gene expression associated with cell cycle and proliferation; E: “Cytokine Signaling Score”—gene expression associated with cytokine signaling and neuroprotection; F: “Neuron Score”—gene expression associated with neuronal identity

**Overview of Alzheimer’s Disease**

AD is the most common cause of dementia, a general term for the loss of memory and other cognitive abilities severe enough to interfere with daily life. AD accounts for 60-80% of dementia cases, and the majority of people with AD are aged 65 and older. A progressive disease, AD usually presents with mild memory loss and progresses to include disorientation, loss of initiative or judgment, difficulty with self-care, behavioral problems, and general mental decline. People aged 65 and older survive an average of four to eight years after diagnosis, with some living as long as 20 years. These data reflect the slow, uncertain progression of the disease, which is the sixth-leading cause of death in the U.S.

The Alzheimer’s Association estimates that 6.2 million people in the U.S. are living with AD in 2021. By 2050, this number is projected to rise to nearly 13 million. The costs of health care and long-term care for people with AD to our healthcare system are substantial. According to the Alzheimer’s Association, the aggregate cost of AD and other dementias is expected to be \$355 billion in 2021, and this number could increase to as much as \$1.1 trillion by 2050.



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### *TREM2 in Alzheimer's Disease*

Loss-of-function TREM2 variants occur in seven to eight percent of the AD population and are linked to both disease progression and worsened patient outcomes. Several genetic variants in TREM2 have emerged from GWAS that significantly increase AD risk by two- to four- fold, an increase in risk comparable to that associated with having one copy of *ApoE4*. The most common and most well-studied TREM2 variant known to increase the risk of AD is the *R47H* variant. The *R47H* variant, which represents two to three percent of the AD population, has been reported to triple AD risk in GWAS and is associated with a 23% more rapid progression of dementia compared with non-variant carriers. Other TREM2 variants have also been implicated as risk factors for developing AD, including *R62H*, *L211P*, and *R136Q* (*rs149622783*), all of which are loss-of-function variants.

Our understanding of the role of microglial dysfunction in plaque development in AD is based on the observation that normally functioning microglia reduce levels of toxic plaques in the brain, such as  $\beta$ -amyloid, while increasing the number of inert, dense core plaques. In addition, normal TREM2 function is required to prevent AD-associated tau protein aggregates from forming. We believe the preponderance of experimental and genetic evidence points to TREM2 as a key modulator that has the potential to slow AD progression, and AD models show that TREM2 plays a protective role throughout all stages of disease progression.

### *Our Small Molecule TREM2 Agonist Clinical Strategy*

Our strategy in AD is to follow a precision medicine approach that first establishes the role of TREM2-mediated microglial dysregulation in the pathogenesis of AD within certain genetically defined patient subpopulations, which includes TREM2 and other variants. We are planning early human translational work with VGL101 in AD to evaluate the effect of TREM2 agonism in these genetically defined subpopulations and compare them with non-carrier cohorts.

We plan to explore whether AD susceptibility genes related to microglial dysfunction confer differential responses to VGL101 as part of the VGL101 Phase 1 SAD/MAD study to evaluate the TREM2-related biomarker profile.

If we obtain favorable results in our Phase 1 SAD/MAD study, we also plan to submit a protocol to the FDA under our planned IND to conduct a Phase 1b biomarker-based, PoM study of VGL101 in genetically defined AD patients with or without the relevant TREM2 variants to inform the target patient population and design for future larger studies that evaluate the safety and efficacy of our small molecule agonist. We believe this approach will reduce translational risk and optimize the selection of the initial patient population recruited for our small molecule program.

### **Competition**

The biotechnology and pharmaceutical industry is characterized by rapidly changing technologies, significant competition and a strong emphasis on intellectual property. These characteristics also apply to the development and commercialization of treatments in neurodegenerative diseases, including AD. While we believe that our focus, expertise, scientific knowledge and intellectual property provide us with competitive advantages, we face competition from several different sources, including large and small biopharmaceutical companies, academic research institutions, government agencies and public and private research organizations, that conduct research, seek patent protection, and establish collaborative arrangements for research, development, manufacturing and commercialization.

No products have been approved to treat ALSP, and we are not aware of any in development other than VGL101. Academics have investigated the use of hematopoietic stem cell transplantation in a small number of ALSP patients, however, we believe this modality has limited benefits and several key limitations.

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We are aware of one company, bluebirdbio, Inc., which received marketing approval in July 2021 in the European Union for a cALD treatment. U.S. development of the product was put on clinical hold in August 2021 following a report that one treated patient developed myelodysplastic syndrome, a type of blood cancer. As of September 2021, a second company, Minoryx Therapeutics, Inc. is developing a small molecule therapeutic for the treatment of cALD in a Phase 2 trial that is registrational enabling for Europe.

Currently, there are two other companies that are in the early stages of developing TREM2 agonists for the treatment of AD. We consider our direct competitors to be Alector, Inc. and its corporate partner, AbbVie Inc., Denali Therapeutics, Inc. and its corporate partner, Takeda Pharmaceutical Company, Cognyx Pharmaceuticals, Inc. and Muna Therapeutics, Inc.

There are several existing treatments marketed today for the treatment of AD, which primarily provide symptomatic relief. Notably, Biogen Inc., recently received FDA accelerated approval for a product based on reduction of  $\beta$ -amyloid plaques, a biomarker that may predict a reduction in clinical decline; continued approval may require demonstration of disease-modifying benefits. Other pharmaceutical and biotechnology companies are pursuing disease-modifying treatments for AD and other common neurodegenerative disorders by seeking to modulate a range of targets. Companies pursuing microglia-targeted therapeutics include Janssen Pharmaceuticals, Inc., Alector Inc., Denali Therapeutics, Inc., Elixiron Therapeutics, Inc., Muna Therapeutics, Inc., Cognyx Pharmaceuticals, Inc., and CAMP4 Therapeutics Corporation, Inc.

Many of our competitors have significant financial, technical, manufacturing, marketing, sales and supply resources or experience. These competitors also compete with us in recruiting qualified scientific and management personnel as well as establishing clinical trial sites and patient registration for clinical trials, and in acquiring new technologies. If we successfully obtain approval for any therapeutic candidate, we will face competition based on many different factors, including the safety and effectiveness of our therapeutics, the ease with which our therapeutics can be administered, the timing and scope of regulatory approvals for these products, the availability and cost of manufacturing, marketing and sales capabilities, price, reimbursement coverage and patent position. Competing products could present superior treatment alternatives, including by being more effective, safer, more convenient, less expensive or marketed and sold more effectively than any products we may develop. Competitive products or technological approaches may make any products we develop obsolete or noncompetitive before we recover the expense of developing and commercializing our therapeutic candidates. If we are unable to compete effectively, our opportunity to generate revenue from the sale of the therapeutics we may develop could be adversely affected.

### Exclusive License Agreement with Amgen Inc.

In July 2020, we entered into an exclusive license agreement with Amgen Inc., pursuant to which we have been granted an exclusive, royalty-bearing license to certain intellectual property rights owned or controlled by Amgen, to commercially develop, manufacture, use, distribute and sell therapeutic products containing compounds that bind to TREM2. In particular, we have been granted licenses under patents filed in both the United States and foreign jurisdictions that are owned or controlled by Amgen, including an exclusive license under certain patents claiming compounds that bind to TREM2. Our exclusively licensed patents include, but are not limited to, patents claiming the composition of TREM2 agonist compounds and methods of using the same.

Pursuant to the terms of the license agreement, we must use commercially reasonable efforts to develop, manufacture, gain marketing authorization and commercialize at least one mAb product and at least one small molecule product in each of several major market territories. In addition, Amgen provided us, at its expense, consulting support in connection with the transfer of the licensed materials and the exploitation of the products. We are also entitled to sublicense the rights granted to us under the license agreement.

As initial consideration for the license, we paid an upfront payment of \$500,000 and also issued 6,928,566 shares of our Series A preferred stock to Amgen at the time of the initial closing with a subsequent 1,963,093

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shares of our Series A preferred stock issued at the time of the milestone closing. As of August 31, 2021, Amgen owned approximately 15.08% of our outstanding shares of capital stock. As additional consideration for the license, we are required to pay Amgen up to \$80.0 million in the aggregate upon the achievement of specified regulatory milestones for the first mAb product and the first small molecule TREM2 agonist product and aggregate milestone payments of up to \$350.0 million upon the achievement of specific commercial milestones across all such mAb products and small molecule products. No regulatory or commercial milestones have been achieved to date under the license agreement. We are also required to pay tiered royalties of low to mid single-digit percentages on annual net sales of the products covered by the license. In the event that the exploitation of a Product is not covered by a valid claim within the licensed patent rights, then the royalty rate with respect to the net sales shall be subject to a customary reduction by a certain percentage. The royalty term will terminate on a country-by-country basis on the later of (i) the expiration date of the last valid claim within the licensed patent rights, and (ii) the tenth (10<sup>th</sup>) anniversary of the first commercial sale of such product in such country.

The license agreement expires upon the expiration of the last-to-expire royalty term for the products in the territory. Upon expiration of the license agreement, the licenses granted to us will be considered fully paid-up, irrevocable and non-exclusive. Either we or Amgen may terminate the license agreement if the other party commits a material breach of the agreement or defaults in the performance thereunder and fails to cure that breach within 90 days after written notice is provided or in the event of bankruptcy, insolvency, dissolution or winding up. Amgen has the right to terminate the license agreement in full upon written notice to us in the event we, our affiliates or sublicensees, directly challenge the patentability, enforceability or validity of any licensed patents, unless, in the event of a sublicensee challenge, we terminate the sublicense within 60 days' notice. Amgen has the right to terminate the license agreement in the event we do not elect to treat a distracting product (as defined in the license agreement) as a newly added product under the license agreement. We shall have the right to terminate the license agreement if we conclude, due to scientific, technical, regulatory or commercial reasons, that the exploitation of the products is no longer commercially practicable.

In connection with the license agreement, Amgen entered into certain stockholder agreements related to this investment. See "Certain Relationships and Related Party Transactions."

### **Master Services Agreement with FUJIFILM**

In February 2021, we entered into a master services agreement with FUJIFILM Diosynth Biotechnologies UK Limited, FUJIFILM Diosynth Biotechnologies Texas, LLC, FUJIFILM Diosynth Biotechnologies U.S.A., Inc, and FUJIFILM Diosynth Biotechnologies Denmark ApS, or collectively, FUJIFILM, pursuant to which FUJIFILM provides research, development, testing and manufacturing services of certain of our product candidates, which are or will be designated as programs pursuant to scope of work agreements. The fees for such services are set out in each scope of work agreement. We may pay additional fees in consideration for certain research and development and technical consultancy services in relation to the procurement, testing and management of consumables; subcontracted work (including delivery of material to and from such subcontractors); process-specific equipment (including installation and qualification thereof); modifications; and special waste.

Either party may terminate the FUJIFILM Agreement by giving three months written notice to the other party, provided there are no uncompleted programs existing at the date such notice is given, or upon material breach that the breaching party cannot cure, does not cure within sixty (60) days if a breach for payment, or otherwise does not commence and diligently pursue a remedy within 60 days. Each scope of work will continue until the earlier of (i) the date the specified in the scope of work, or if no such date is specified, the date the program, or part of the program referred to in the scope of work, is completed, or (ii) termination of the master services agreement or the relevant scope of work. Additionally, upon providing written notice, we may cancel certain stages or programs for convenience, and FUJIFILM may terminate for certain unforeseen technical errors. We may also be required to pay FUJIFILM cancellation fees in the event that we decide to terminate the

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FUJIFILM Agreement pursuant to its terms, calculated as a percentage of the fees payable under the applicable scope of work agreement.

**Intellectual Property**

We actively seek to protect our proprietary technology, inventions, and other intellectual property that is commercially important to the development of our business by a variety of means, for example seeking, maintaining, and defending patent rights, whether developed internally or licensed from third parties. We also rely on trade secrets and know-how relating to our proprietary technology for our product candidates and on continuing technological innovation, and we may rely on in-licensing opportunities to develop, strengthen and maintain the strength of our position in the field of microglia-based therapeutics and TREM2 agonists that may be important for the development of our business. Our commercial success depends, in part, on our ability to obtain, maintain, enforce and protect our intellectual property and other proprietary rights for the technology, inventions and improvements and to defend any patents we may own or in-license in the future, prevent others from infringing any patents we may own or in-license in the future, preserve the confidentiality of our trade secrets, and operate without infringing, misappropriating or otherwise violating the valid and enforceable patents and proprietary rights of third parties.

***Patent Protection***

As with other biotechnology and pharmaceutical companies, our ability to maintain and solidify our proprietary and intellectual property position for our product candidates and technologies will depend on our success in obtaining effective patent claims and enforcing those claims if granted. However, our pending patent applications, and any patent applications that we may in the future file or license from third parties, may not result in the issuance of patents and any issued patents we may obtain do not guarantee us the right to practice our technology or commercialize our product candidates. We also cannot predict the breadth of claims that may be allowed or enforced in any patents we may own or in-license in the future. Any issued patents that we may own or in-license in the future may be challenged, invalidated, circumvented or have the scope of their claims narrowed. In addition, because of the extensive time required for clinical development and regulatory review of a product candidate we may develop, it is possible that, before any of our product candidates can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby limiting the protection such patent would afford the respective product and any competitive advantage such patent may provide.

The term of individual patents depends upon the date of filing of the patent application, the date of patent issuance, and the legal term of patents in the countries in which they are obtained. In most countries, including the United States, the patent term is 20 years from the earliest filing date of a non-provisional patent application. In the United States, a patent's term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the USPTO in examining and granting a patent, or may be shortened if a patent is terminally disclaimed over an earlier expiring patent. The term of a U.S. patent claiming a new drug product may also be eligible for a limited patent term extension when FDA approval is granted, provided statutory and regulatory requirements are met. The term extension period granted on a U.S. patent covering a product is typically one-half the time between the effective date of a clinical investigation involving human beings is begun and the submission date of an application, plus the time between the submission date of an application and the ultimate approval date. The term extension period cannot be longer than five years, and the term extension period may not extend the patent term beyond 14 years from the date of FDA approval. The United States Patent and Trademark Office reviews and approves the application for any patent term extension in consultation with the FDA. In the future, if our product candidates receive approval by the FDA, we expect to apply for patent term extensions on any issued patents covering those products, depending upon the length of the clinical studies for each product and other factors. There can be no assurance that our pending patent applications, and any patent applications that we may in the future file or license from third parties, will issue or that we will benefit from any patent term extension or favorable adjustments to the terms of any patents we may own or in-license in the

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future. In addition, the actual protection afforded by a patent varies on a product-by-product basis, from country-to-country, and depends upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory-related extensions, the availability of legal remedies in a particular country and the validity and enforceability of the patent. Patent term may be inadequate to protect our competitive position on our products for an adequate amount of time.

Our policy is to file patent applications to protect technology, inventions and improvements to inventions that may be commercially important to the development of our business. We seek patent protection in the United States and foreign countries for a variety of technologies, including our TREM2 agonist therapeutic product candidates, VGL101 and small molecule TREM2 agonists, methods for treating neurodegenerative diseases, and methods of selecting patient populations based on biomarkers.

### ***VGL101***

We have an exclusive license from Amgen to one patent family directed to VGL101 and other TREM2 antibodies, and this patent family contains patent applications directed to compositions of matter and certain methods of their use. As of August 31, 2021, this family contains one allowed U.S. patent application and patent applications in Europe, Japan, Australia, Canada, China and over 30 additional countries. Any U.S. or foreign patents that issue from these patent applications, if granted and all appropriate maintenance fees paid, are expected to expire in 2038, not including any patent term adjustment, patent term extension, or Supplementary Protection Certificate (SPC).

### ***Small Molecule TREM2 Agonists***

We solely own one patent family and jointly own with Amgen two patent families, each of which is directed to small molecule TREM2 agonist compositions of matter and methods of their use. We exclusively license Amgen's rights in the two jointly owned patent families. As of August 31, 2021, our solely owned patent family to small molecule TREM2 agonists contains one U.S. provisional patent application, whereby any U.S. or foreign patents that issue based on this patent application, if granted and all appropriate maintenance fees paid, are expected to expire in year 2042, not including any patent term adjustment, patent term extension, or SPC. As of August 31, 2021, the first jointly owned patent family to small molecule TREM2 agonists contains one international patent application, whereby any U.S. or foreign patents that issue from this patent application, if granted and all appropriate maintenance fees paid, are expected to expire in year 2041, not including any patent term adjustment, patent term extension, or SPC. Additionally, as of August 31, 2021, the second jointly owned patent family to small molecule TREM2 agonists contains one international patent application, one U.S. patent application, along with patent applications in Argentina and Taiwan, whereby any U.S. or foreign patents that issue from these patent applications, if granted and all appropriate maintenance fees paid, are expected to expire in year 2041, not including any patent term adjustment, patent term extension, or SPC.

### ***TREM2 Agonists for CSF1R Dysfunction***

We solely own one patent family directed to methods of treating diseases associated with CSF1R dysfunction using a TREM2 agonist, such as VGL101 or other TREM2 antibody. As of August 31, 2021, this family contains one international patent application, one U.S. patent application, and one patent application in Taiwan. Any U.S. or foreign patents that issue based on these patent applications, if granted and all appropriate maintenance fees paid, are expected to expire in year 2041, not including any patent term adjustment, patent term extension, or SPC.

### ***Methods of Treatment & Biomarkers for Alzheimer's Disease***

As of August 31, 2021, we exclusively license from Amgen one U.S. provisional patent application directed to methods of treating AD using a TREM2 agonist, as well as methods for identifying a patient with AD who will benefit from treatment with a TREM2 agonist. Any U.S. or foreign patents that issue based on this patent application, if granted and all appropriate maintenance fees paid, are expected to expire in year 2041, not including any patent term adjustment, patent term extension, or SPC.

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### *TREM2 Agonists for ABCD1 Dysfunction*

As of August 31, 2021, we solely own one U.S. provisional patent application directed to methods of treating diseases associated with ABCD1 dysfunction using a TREM2 agonist. Any U.S. or foreign patents that issue based on this patent application, if granted and all appropriate maintenance fees paid, are expected to expire in year 2041, not including any patent term adjustment, patent term extension, or SPC.

### *TREM2 Agonist Biomarkers*

As of August 31, 2021, we solely own one U.S. provisional patent application directed to methods of treating a disorder associated with microglial dysfunction in certain patients using a TREM2 agonist, as well as methods of identifying a patient with a condition associated with microglial dysfunction that will benefit from treatment with a TREM2 agonist. Any U.S. or foreign patents that issue based on this patent application, if granted and all appropriate maintenance fees paid, are expected to expire in year 2042, not including any patent term adjustment, patent term extension, or SPC.

### *Trade Secrets*

We also rely on trade secrets, know-how, continuing technological innovation and confidential information to develop and maintain our proprietary position and protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection. We seek to protect our proprietary technology and processes, in part, by confidentiality agreements and invention assignment agreements with our employees, consultants, scientific advisors, contractors and others who may have access to proprietary information, under which they are bound to assign to us inventions made during the term of their employment or term of service. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems.

### **Commercialization**

We do not currently have any approved drugs, and we do not expect to have any approved drugs in the near term. As a company, we do not have sales, marketing or commercial product distribution capabilities. We will evaluate all available options for commercialization of our potential therapies, if approved for commercialization by FDA and other relevant regulatory worldwide bodies. We may consider building out our own commercialization infrastructure in the United States, Europe, Asia and other geographies, entering into co-commercialization agreements with other biopharmaceutical companies with strong and proven commercial capabilities, and licensing select or all geographical rights for some or all of our therapies.

### **Manufacturing**

We do not own or operate manufacturing facilities for the production of our drug candidates and currently have no plans to build our own clinical or commercial scale manufacturing capabilities. We rely, and expect to continue to rely, on third-party manufacturers to produce our product candidates for use in human clinical trials in compliance with FDA and other foreign regulatory requirements, and on contract development and manufacturing organizations (CDMOs) to manufacture and supply our preclinical and clinical materials.

VGL101 is a monoclonal antibody produced from a recombinant cell line. We have established non-exclusive relationships with CDMOs for the GMP manufacturing of VGL101 drug substance and drug product, and with other third parties for testing, fill finish, packaging and labeling. We have a license from Amgen Inc. for use of its proprietary cell lines and media, which we rely on for manufacturing VGL101. FUJIFILM is currently, and will be for the foreseeable future, the sole supplier of certain testing and manufacturing services for VGL101.

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The small molecule compound we are developing is produced through chemical synthesis technology. We are currently in the process of selecting a development candidate to advance into clinical trials. Our selection of a development candidate, along with potential back up compounds, will be made not only on the basis of potential clinical activity and tolerability, but also on the relative ease and reproducibility of synthesis, reasonable cost of goods and ready availability of starting materials. We plan to retain a contract manufacturing organization to produce a small molecule agonist for clinical trials once we select a development candidate.

We do not have long-term supply agreements, and we purchase our required drug product on a development manufacturing services agreement or purchase order basis. We expect to continue to rely on third-party manufacturers for the commercial supply of any of our product candidates for which we obtain marketing approval. We have personnel with significant technical, manufacturing, analytical, quality, regulatory, including cGMP, and project management experience to oversee our third-party manufacturers and to manage manufacturing and quality data and information for regulatory compliance purposes.

Our product candidates for clinical trial use must be manufactured in compliance with cGMP regulations. The cGMP regulations include requirements relating to organization of personnel, buildings and facilities, equipment, control of components and drug product containers and closures, production and process controls, packaging and labeling controls, holding and distribution, laboratory controls, records and reports, and returned or salvaged products.

### Government Regulation

Government authorities in the United States, at the federal, state and local level and in other countries and jurisdictions, including the European Union, extensively regulate, among other things, the research, development, testing, manufacture, pricing, reimbursement, sales, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting and import and export of drugs and biological products such as those we are developing. The processes for obtaining marketing approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations and other regulatory authorities, require the expenditure of substantial time and financial resources.

#### *Licensure and Regulation of Drugs and Biologics in the United States*

In the United States, where we are initially focusing our product development, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act (FDCA), and biologics under the FDCA and the Public Health Service Act (PHSA), and their implementing regulations. Both drugs and biologics are also subject to other federal, state and local statutes and regulations. We are currently developing product candidates that would be regulated under the FDCA, and/or the PHSA, and their implementing regulations, as drugs or biologics, depending on the modality of each product candidate. Our product candidates are early-stage and have not been approved by the FDA for marketing in the United States.

An applicant seeking approval to market and distribute a new drug or biologic in the United States generally must satisfactorily complete each of the following steps:

- preclinical laboratory tests, animal studies and formulation studies all performed in accordance with the FDA's Good Laboratory Practices (GLP) regulations, as applicable;
- completion of the manufacture, under current Good Manufacturing Practices (cGMP) conditions, of the drug substance and drug product that the sponsor intends to use in human clinical trials along with required analytical and stability testing;
- submission to the FDA of an Investigational New Drug application (IND), for human clinical testing, which must become effective before human clinical trials may begin;

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- approval by an independent institutional review board (IRB), representing each clinical trial site before each clinical trial site may be initiated;
- performance of adequate and well-controlled human clinical trials, in accordance with current Good Clinical Practices (GCP) and any additional nonclinical studies required to establish the safety, efficacy, potency and purity of the product candidate for each proposed indication;
- preparation and submission to the FDA of a new drug application (NDA), or a Biologics License Application (BLA), for a biologic product, requesting marketing for one or more proposed indications, including submission of detailed information on the manufacture and composition of the product in clinical development and proposed labeling;
- review of the product by an FDA advisory committee, where appropriate or if applicable;
- satisfactory completion of one or more FDA inspections of the manufacturing facility or facilities, including those of third parties, at which the product, or components thereof, are produced to assess compliance with cGMP and to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity;
- satisfactory completion of any FDA audits of the preclinical studies and clinical trial sites to assure compliance with GLP, as applicable, and GCP, and the integrity of clinical data in support of the NDA or BLA;
- payment of user fees under the Prescription Drug User Fee Act (PDUFA), unless exempted;
- securing FDA approval of the NDA or BLA; and
- compliance with any post-approval requirements, including the potential requirement to implement a Risk Evaluation and Mitigation Strategy (REMS) and any post-approval studies or other post-marketing commitments required by the FDA.

The failure to comply with the applicable U.S. requirements at any time during the product development process, including preclinical testing, clinical testing, the approval process, or post-approval process, may subject an applicant to delays in the conduct of the study, regulatory review and approval and/or administrative or judicial sanctions. These sanctions may include, but are not limited to, the FDA's refusal to allow an applicant to proceed with clinical testing, refusal to approve pending applications, license suspension or revocation, withdrawal of an approval, issuance of warning or untitled letters, adverse publicity, product recalls, marketing restrictions, product seizures, import detentions and refusals, total or partial suspension of production or distribution, injunctions, fines and civil or criminal investigations and penalties brought by the FDA or the Department of Justice (DOJ), and other governmental entities, including state agencies.

#### ***Preclinical Studies and Investigational New Drug Application***

Before testing any therapeutic product candidate in humans, the product candidate must undergo preclinical testing. Preclinical tests include laboratory evaluations of product chemistry, formulation and stability, as well as studies to evaluate the potential for efficacy and toxicity in animal studies. The conduct of the preclinical tests and formulation of the compounds for testing must comply with federal regulations and requirements. The results of the preclinical tests, together with manufacturing information, analytical data, and plans for the proposed clinical studies, are submitted to the FDA as part of an IND application. Some preclinical testing may continue after an IND is submitted.

An IND is an exemption from the FDCA that allows an unapproved product candidate to be shipped in interstate commerce for use in a clinical trial and a request for FDA authorization to administer such investigational product to humans. The IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions about the product or conduct of the proposed clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks. In



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that case, the IND sponsor and the FDA must resolve any outstanding FDA concerns before the clinical trials can begin.

As a result, submission of the IND may result in the FDA not allowing the trials to commence or allowing the trial to commence on the terms originally specified by the sponsor in the IND. If the FDA raises concerns or questions either during this initial 30-day period, or at any time during the IND review process, it may choose to impose a partial or complete clinical hold. Clinical holds may be imposed by the FDA when there is concern for patient safety, and may be a result of new data, findings, or developments in clinical, preclinical and/or chemistry, manufacturing and controls or where there is non-compliance with regulatory requirements. This order issued by the FDA would delay either a proposed clinical trial or cause suspension of an ongoing trial, until all outstanding concerns have been adequately addressed and the FDA has notified the company that investigations may proceed. A separate submission to an existing IND must also be made for each successive clinical trial conducted during drug development, and the FDA must grant permission, either explicitly or implicitly by not objecting, before each clinical trial can begin.

### ***Human Clinical Trials in Support of an NDA or BLA***

Clinical trials involve the administration of the investigational product candidate to healthy volunteers or patients with the disease or condition to be treated under the supervision of qualified investigators in accordance with GCP requirements. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, dosing procedures, inclusion and exclusion criteria, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. Clinical testing also must satisfy extensive GCP rules and the requirements for informed consent.

A sponsor who wishes to conduct a clinical trial outside the United States may, but need not, obtain FDA authorization to conduct the clinical trial under an IND. When a foreign clinical trial is conducted under an IND, all FDA IND requirements must be met unless waived. The FDA will accept a well-designed and well-conducted foreign clinical study not conducted under an IND if the study was conducted in accordance with GCP requirements, and the FDA is able to validate the data through an onsite inspection if deemed necessary. The GCP requirements encompass both ethical and data integrity standards for clinical trials. The FDA's regulations are intended to help ensure the protection of human subjects enrolled in non-IND foreign clinical trials, as well as the quality and integrity of the resulting data. They further help ensure that non-IND foreign trials are conducted in a manner comparable to that required for clinical trials in the United States.

Further, each clinical trial must be reviewed and approved by an IRB either centrally or individually at each institution at which the clinical trial will be conducted. The IRB will consider, among other things, clinical trial design, patient informed consent, ethical factors, the safety of human subjects and the possible liability of the institution. An IRB must operate in compliance with FDA regulations. The FDA, IRB, or the clinical trial sponsor may suspend or discontinue a clinical trial at any time for various reasons, including a finding that the clinical trial is not being conducted in accordance with GCP requirements or that the participants are being exposed to an unacceptable health risk.

Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board (DSMB), or data monitoring committee (DMC). This group may recommend continuation of the trial as planned, changes in trial conduct, or cessation of the trial at designated check points based on certain available data from the trial to which only the DSMB/DMC has access.

Clinical trials typically are conducted in three sequential phases, but the phases may overlap or be combined. Additional studies may be required after approval.

- Phase 1 clinical trials are initially conducted in a limited population of healthy subjects or disease-affected patients to test the product candidate for safety, including adverse effects, dose tolerance, absorption, metabolism, distribution, excretion and pharmacodynamics.

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- Phase 2 clinical trials are generally conducted in a limited patient population to identify possible adverse effects and safety risks, evaluate the efficacy of the product candidate for specific targeted indications and determine dose tolerance and optimal dosage. Multiple Phase 2 clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more costly Phase 3 clinical trials.
- Phase 3 clinical trials typically proceed if the Phase 2 clinical trials demonstrate that a dose range of the product candidate is potentially effective and has an acceptable safety profile. Phase 3 clinical trials are generally undertaken within an expanded patient population to further evaluate dosage, provide substantial evidence of clinical efficacy and further test for safety in an expanded and diverse patient population at multiple, geographically dispersed clinical trial sites. A well-controlled, statistically robust Phase 3 trial may be designed to deliver the data that regulatory authorities will use to decide whether or not to approve, and, if approved, how to appropriately label a therapeutic.

In some cases, the FDA may approve an NDA or BLA for a product but require the sponsor to conduct additional clinical trials to further assess the product's safety and effectiveness after approval. Such post-approval trials are typically referred to as Phase 4 clinical trials. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication and to document a clinical benefit for products approved under accelerated approval regulations. The failure to exercise due diligence with regard to conducting Phase 4 clinical trials could result in withdrawal of approval for products.

Information about applicable clinical trials must be submitted within specific timeframes to the NIH for public dissemination on its ClinicalTrials.gov website.

Progress reports detailing the results of the clinical trials, among other information, must be submitted at least annually to the FDA and written IND safety reports must be submitted to the FDA and the investigators for serious and unexpected suspected adverse events, findings from other studies or animal or *in vitro* testing that suggest a significant risk for human subjects and any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must submit an IND safety report within 15 calendar days after the sponsor determines that the information qualifies for reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information.

Under the Pediatric Research Equity Act of 2003, an NDA, BLA or supplement thereto must contain data that are adequate to assess the safety and effectiveness of the product for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDCA requires that a sponsor who is planning to submit a marketing application for a product that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration submit an initial Pediatric Study Plan (PSP), within sixty days of an end-of-Phase 2 meeting or as may be agreed between the sponsor and FDA. Those plans must contain an outline of the proposed pediatric study or studies the applicant plans to conduct, including study objectives and design, any deferral or waiver requests and other information required by regulation. The sponsor and the FDA must reach agreement on the PSP. The FDA or the applicant may request an amendment to the plan at any time.

The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements. Additional requirements and procedures relating to deferral requests and requests for extension of deferrals are contained in the Food and Drug Administration Safety and Innovation Act. Unless otherwise required by regulation, the pediatric data requirements do not apply to products with orphan designation.

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### ***Compliance with cGMP Requirements***

Concurrent with clinical trials, companies must finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product and, among other things, companies must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidates do not undergo unacceptable deterioration over their shelf life. Before approving an NDA or BLA, the FDA will typically inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. The PHSA emphasizes the importance of manufacturing controls for products like biologics whose attributes cannot be precisely defined.

Manufacturers and others involved in the manufacture and distribution of products must also register their establishments with the FDA and certain state agencies. Both domestic and foreign manufacturing establishments must register and provide additional information to the FDA upon their initial participation in the manufacturing process. Any product manufactured by or imported from a facility that has not registered, whether foreign or domestic, is deemed misbranded under the FDCA. Establishments may be subject to periodic unannounced inspections by government authorities to ensure compliance with cGMPs and other laws. Noncompliance with such requirements can lead to adverse findings by the FDA during these inspections; in instances of significant or continued noncompliance, such adverse findings can serve as the basis for additional regulatory action by the FDA, including but not limited to warning and “untitled” letters.

### ***Review and Approval of an NDA or BLA***

The results of product candidate development, preclinical testing and clinical trials, including negative or ambiguous results as well as positive findings, are submitted to the FDA as part of an NDA or BLA requesting approval to market the product for one or more specified indications. The NDA or BLA must contain extensive manufacturing information and detailed information on the composition of the product and proposed labeling as well as payment of a user fee. Under federal law, the submission of most NDAs and BLAs are subject to an application user fee. The sponsor of an approved NDA or BLA is also subject to an annual program fee. Certain exceptions and waivers are available for some of these fees, such as an exception from the application fee for products with orphan designation and a waiver for certain small businesses.

The FDA has 60 days after submission of the application to conduct an initial review to determine whether to accept it for filing based on the agency’s threshold determination that it is sufficiently complete to permit substantive review. If the submission has been accepted for filing, the FDA begins an in-depth review of the application. Under the goals and policies agreed to by the FDA under PDUFA, the FDA has ten months in which to complete its initial review of a standard application and respond to the applicant, and six months for a priority review of the application. The FDA does not always meet its PDUFA goal dates for standard and priority NDAs and BLAs. The review process may be significantly extended by FDA requests for additional information or clarification. The review process and the PDUFA goal date may be extended by three months if the FDA requests or if the applicant otherwise provides additional information or clarification regarding information already provided in the submission within the last three months before the PDUFA goal date.

The FDA reviews an NDA or BLA to determine, among other things, whether the product is safe and effective and whether the facility in which it is manufactured, processed, packaged or held meets standards designed to assure the product’s continued safety, quality and purity. The FDA likely will reanalyze the clinical trial data, which could result in extensive discussions between the FDA and the applicant during the review process. On the basis of the FDA’s evaluation of the application and accompanying information, including the results of the inspection of the manufacturing facilities and any FDA audits of preclinical and clinical trial sites to

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assure compliance with GCPs, the FDA may issue an approval letter or a complete response letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. If the application is not approved, the FDA will issue a complete response letter, which will contain the conditions that must be met in order to secure final approval of the application, and when possible, will outline recommended actions the sponsor might take to obtain approval of the application. The complete response letter may require additional clinical data and/or other significant and time-consuming requirements related to clinical trials, preclinical studies or manufacturing. Sponsors that receive a complete response letter have one year to submit to the FDA information that represents a complete response to the deficiencies identified by the FDA. The FDA will then re-review the application, taking into consideration the response, and determine whether the application meets the criteria for approval. Failure to respond to a complete response letter will serve as a withdrawal of an application. The FDA will not approve an application until issues identified in any complete response letters have been addressed.

The FDA may refer applications for novel products or products that present difficult questions of safety or efficacy to an advisory committee.

Typically, an advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions, if any. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

If the FDA approves a new product, it may limit the approved indication(s) for use of the product. It may also require that contraindications, warnings, or precautions be included in the product labeling. In addition, the FDA may require post-approval studies, including Phase 4 clinical trials, to further assess the product's efficacy and/or safety after approval. The agency may also require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, including a REMS program, to help ensure that the benefits of the product outweigh the potential risks. A REMS can include medication guides, communication plans for healthcare professionals and elements to assure safe use (ETASU). ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring and the use of patent registries. The FDA may prevent or limit further marketing of a product based on the results of post-market studies or surveillance programs. After approval, many types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

### ***Fast Track, Breakthrough Therapy and Priority Review Designations***

FDA provides programs intended to facilitate and expedite development and review of new products that are intended to address an unmet medical need in the treatment of a serious or life-threatening disease or condition. These programs are referred to as fast track designation, breakthrough therapy designation and priority review designation. These designations are not mutually exclusive, and a product candidate may qualify for one or more of these programs. While these programs are intended to expedite product development and approval, they do not alter the standards for FDA approval.

The FDA may designate a product for fast track designation if it is intended, whether alone or in combination with one or more other products, for the treatment of a serious or life-threatening disease or condition, and it demonstrates the potential to address unmet medical needs for such a disease or condition. For products with fast track designation, sponsors may have more frequent interactions with the FDA, the product is potentially eligible for accelerated approval and priority review, if relevant criteria are met, and the FDA may initiate review of sections of a product with fast track designation's application before the application is complete. This rolling review may be available if the FDA determines, after preliminary evaluation of clinical data submitted by the sponsor, that a product with fast track designation may be effective. The sponsor must also

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provide, and the FDA must approve, a schedule for the submission of the remaining information and the sponsor must pay applicable user fees. However, the FDA's time period goal for reviewing a fast track application does not begin until the last section of the application is submitted. In addition, the fast track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

A product may be designated as a breakthrough therapy if it is intended, either alone or in combination with one or more other products, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. The FDA may take certain actions with respect to breakthrough therapies, including holding meetings with the sponsor throughout the development process; providing timely advice to the product sponsor regarding development and approval; involving more senior staff managers in the review process; assigning a cross-disciplinary lead for the review team; and taking other steps to design the clinical trials in an efficient manner. Breakthrough designation may be rescinded if a product no longer meets the qualifying criteria.

The FDA may designate a product for priority review if it is a product that treats a serious condition and, if approved, would provide a significant improvement in safety or effectiveness when compared with other available therapies. Significant improvement may be illustrated by evidence of increased effectiveness in the treatment of a condition, elimination or substantial reduction of a treatment-limiting adverse reaction, documented enhancement of patient compliance that may lead to improvement in serious outcomes and evidence of safety and effectiveness in a new subpopulation. A priority review designation is intended to direct overall attention and resources to the evaluation of such applications, and to shorten the FDA's goal for taking action on a marketing application from ten months to six months. Priority review designation may be rescinded if a product no longer meets the qualifying criteria.

### *Accelerated Approval Pathway*

The FDA may grant accelerated approval to a product for a serious or life-threatening condition that provides meaningful therapeutic advantage to patients over existing treatments based upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit but is not itself a measure of clinical benefit. The FDA may also grant accelerated approval for such a condition when the product has an effect on an intermediate clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality (IMM), and that is reasonably likely to predict an effect on IMM or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. The FDA has limited experience with accelerated approvals based on intermediate clinical endpoints but has indicated that such endpoints generally may support accelerated approval where the therapeutic effect measured by the endpoint is not itself a clinical benefit and basis for traditional approval, if there is a basis for concluding that the therapeutic effect is reasonably likely to predict the ultimate clinical benefit of a product. Products granted accelerated approval must meet the same statutory standards for safety and effectiveness as those granted traditional approval.

The accelerated approval pathway is most often used in settings in which the course of a disease is long, and an extended period of time is required to measure the intended clinical benefit of a product, even if the effect on the surrogate or intermediate clinical endpoint occurs rapidly. The accelerated approval pathway is usually contingent on a sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the product's clinical benefit. As a result, a product candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of Phase 4 or post-approval clinical trials to confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, confirm a clinical benefit during post-marketing studies or dissemination of false or misleading

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promotional materials would allow the FDA to withdraw the product from the market on an expedited basis. All promotional materials for therapeutic candidates approved under accelerated regulations are subject to prior review by the FDA.

### ***Orphan Drug Designation***

Orphan drug designation in the United States is designed to encourage sponsors to develop products intended for treatment of rare diseases or conditions. In the United States, a rare disease or condition is statutorily defined as a condition that affects fewer than 200,000 individuals in the United States or that affects 200,000 or more individuals in the United States and for which there is no reasonable expectation that the cost of developing and making available the drug or biologic for the disease or condition will be recovered from sales of the product in the United States.

Orphan drug designation qualifies a company for tax credits and market exclusivity for seven years following the date of the product's marketing approval if granted by the FDA. An application for designation as an orphan product can be made any time prior to the filing of an application for approval to market the product. After FDA grants orphan designation, the product must then go through the review and approval process like any other product.

A sponsor may request orphan drug designation of a previously unapproved product or new orphan indication for an already marketed product. In addition, a sponsor of a product that is otherwise the same product as an already approved orphan drug may seek and obtain orphan drug designation for the subsequent product for the same rare disease or condition if it can present a plausible hypothesis that its product may be clinically superior to the first drug. More than one sponsor may receive orphan drug designation for the same product for the same rare disease or condition, but each sponsor seeking orphan drug designation must file a complete request for designation.

If a product with orphan designation receives the first FDA approval for the disease or condition for which it has such designation or for a select indication or use within the rare disease or condition for which it was designated, the product generally will receive orphan drug exclusivity. Orphan drug exclusivity means that the FDA may not approve another sponsor's marketing application for the same product for the same indication for seven years, except in certain limited circumstances. If a product designated as an orphan drug ultimately receives marketing approval for an indication broader than what was designated in its orphan drug application, it may not be entitled to exclusivity.

The period of exclusivity begins on the date that the marketing application is approved by the FDA and applies only to the indication for which the product has been designated. The FDA may approve a second application for the same product for a different use or a second application for a clinically superior version of the product for the same use. The FDA cannot, however, approve the same product made by another manufacturer for the same indication during the market exclusivity period unless it has the consent of the sponsor, or the sponsor is unable to provide sufficient quantities.

### ***Pediatric Exclusivity***

Pediatric exclusivity is another type of non-patent marketing exclusivity in the United States and, if granted, provides for the attachment of an additional six months of marketing protection to the term of any existing regulatory exclusivity, including orphan exclusivity. This six-month exclusivity may be granted if an NDA or BLA sponsor submits pediatric data that fairly respond to a written request from the FDA for such data. The data do not need to show the product to be effective in the pediatric population studied; rather, if the clinical trial is deemed to fairly respond to the FDA's request, the additional protection is granted. If reports of requested pediatric studies are submitted to and accepted by the FDA within the statutory time limits, whatever statutory or regulatory periods of exclusivity that cover the product are extended by six months.

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### *U.S. Patent Term Restoration and Extension and Marketing Exclusivity*

In the United States, a patent claiming a new drug or biologic product, its method of use or its method of manufacture may be eligible for a limited patent term extension under the Hatch-Waxman Act, which permits a patent extension of up to five years for patent term lost during product development and FDA regulatory review. Assuming grant of the patent for which the extension is sought, the restoration period for a patent covering a product is typically one-half the time between the effective date of the IND and the submission date of the NDA or BLA, plus the time between the submission date of the NDA or BLA and the ultimate approval date, except that the review period is reduced by any time during which the applicant failed to exercise due diligence. Patent term restoration cannot be used to extend the remaining term of a patent past a total of 14 years from the product's approval date in the United States. Only one patent applicable to an approved product is eligible for the extension, and the application for the extension must be submitted prior to the expiration of the patent for which extension is sought. A patent that covers multiple products for which approval is sought can only be extended in connection with one of the approvals. The USPTO reviews and approves the application for any patent term extension in consultation with the FDA.

Marketing exclusivity provisions under the FDCA also can delay the submission or the approval of certain applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to gain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an abbreviated new drug application (ANDA), or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement. The FDCA also provides three years of marketing exclusivity for an NDA, 505(b)(2) NDA or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the conditions of use associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active agent. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

### *Biosimilars and Exclusivity*

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or, collectively, the ACA, which was signed into law in March 2010, included a subtitle called the Biologics Price Competition and Innovation Act of 2009 (BPCIA). The BPCIA established a regulatory scheme authorizing the FDA to approve biosimilars and interchangeable biosimilars. A biosimilar is a biological product that is highly similar to an existing FDA-licensed "reference product." The FDA has issued multiple guidance documents outlining an approach to review and approval of biosimilars. Under the BPCIA, a manufacturer may submit an application for licensure of a biologic product that is "biosimilar to" or "interchangeable with" a previously approved biological product or "reference product." In order for the FDA to approve a biosimilar product, it must find that there are no clinically meaningful differences between the reference product and proposed biosimilar product in terms of safety, purity and potency. For the FDA to approve a biosimilar product as interchangeable with a reference product, the agency must find that the biosimilar product can be expected to produce the same clinical results as the reference product, and (for products administered multiple times) that the biologic and the reference biologic may be switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic.

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Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date of approval of the reference product. The FDA may not approve a biosimilar product until 12 years from the date on which the reference product was approved. Even if a product is considered to be a reference product eligible for exclusivity, another company could market a competing version of that product if the FDA approves a full BLA for such product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product. The BPCIA also created certain exclusivity periods for biosimilars approved as interchangeable products. At this juncture, it is unclear whether products deemed "interchangeable" by the FDA will, in fact, be readily substituted by pharmacies, which are governed by state pharmacy law. Since the passage of the BPCIA, many states have passed laws or amendments to laws, including laws governing pharmacy practices, which are state regulated, to regulate the use of biosimilars.

### *Post-Approval Regulation*

If regulatory approval for a product or new indication for an existing product is obtained, the sponsor will be required to comply with all post-approval regulatory requirements as well as any specific post-approval requirements that the FDA have imposed as part of the approval process. The sponsor will be required to report certain adverse reactions and production problems to the FDA, provide updated safety and efficacy information and comply with requirements concerning advertising and promotional labeling requirements and record-keeping requirements. Manufacturers and certain of their subcontractors are required to register their establishments with the FDA and certain state agencies and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with ongoing regulatory requirements, including cGMP regulations, which impose certain procedural and documentation requirements upon manufacturers. Accordingly, the sponsor and its third-party manufacturers must continue to expend time, money and effort in the areas of production and quality control to maintain compliance with cGMP regulations and other regulatory requirements.

A biological product may also be subject to official lot release, meaning that the manufacturer is required to perform certain tests on each lot of the product before it is released for distribution. If the product is subject to official lot release, the manufacturer must submit samples of each lot, together with a release protocol showing a summary of the history of manufacture of the lot and the results of all of the manufacturer's tests performed on the lot, to the FDA. The FDA may in addition perform certain confirmatory tests on lots of some products before releasing the lots for distribution. Finally, the FDA will conduct laboratory research related to the safety, purity, potency and effectiveness of pharmaceutical products.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product;
- complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of product license approvals;
- product recall, seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.



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The FDA strictly regulates the marketing, labeling, advertising and promotion of prescription drug products placed on the market. This regulation includes, among other things, standards and regulations for direct-to-consumer advertising, communications regarding unapproved uses, industry-sponsored scientific and educational activities and promotional activities involving the internet and social media. Promotional claims about a drug's safety or effectiveness are prohibited before the drug is approved. After approval, a drug product generally may not be promoted for uses or patient populations that are not approved by the FDA, as reflected in the product's prescribing information (known as "off-label" use). In the United States, healthcare professionals are generally permitted to prescribe drugs for such off-label uses because the FDA does not regulate the practice of medicine. However, FDA regulations impose rigorous restrictions on manufacturers' communications, prohibiting the promotion of off-label uses. Prescription drug and biologic promotional materials must be submitted to the FDA in conjunction with their first use.

If a company, including any agent of the company or anyone speaking on behalf of the company, is found to have promoted off-label uses, the company may become subject to adverse public relations and administrative and judicial enforcement by the FDA, the DOJ, or the Office of the Inspector General of the Department of Health and Human Services, as well as state authorities. This could subject a company to a range of penalties that could have a significant commercial impact, including civil and criminal fines and agreements that materially restrict the manner in which a company promotes or distributes drug products. The federal government has levied large civil and criminal fines against companies for alleged improper promotion and has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed.

### *Federal and State Data Privacy and Security Laws*

Under the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA), the U.S. Department of Health and Human Services (HHS), has issued regulations to protect the privacy and security of protected health information (PHI), used or disclosed by covered entities including certain healthcare providers, health plans and healthcare clearinghouses. HIPAA also regulates standardization of data content, codes and formats used in healthcare transactions and standardization of identifiers for health plans and providers. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 or HITECH, and their regulations, including the final omnibus rule published on January 25, 2013, also imposes certain obligations on the business associates of covered entities that obtain protected health information in providing services to or on behalf of covered entities. In addition to federal privacy regulations, there are a number of state laws governing confidentiality and security of health information that are applicable to our business. In addition to possible federal administrative, civil and criminal penalties for HIPAA violations, state attorneys general are authorized to file civil actions for damages or injunctions in federal courts to enforce HIPAA and seek attorney's fees and costs associated with pursuing federal civil actions. Accordingly, state attorneys general have brought civil actions seeking injunctions and damages resulting from alleged violations of HIPAA's privacy and security rules. New laws and regulations governing privacy and security may be adopted in the future as well.

Additionally, states, such as California, Virginia and Colorado have recently enacted the consumer privacy laws that grant rights to data subjects and place increased privacy and security obligations on entities handling personal data of consumers or households. While we are not currently subject to laws such as the California Consumer Privacy Act (CCPA), some observers note that the CCPA and similar legislation could mark the beginning of a trend toward more stringent privacy legislation in the U.S., which could increase our potential liability and adversely affect our business.

Because of the breadth of these laws and the narrowness of the statutory exceptions under such laws, it is possible that some of our current or future business activities, including certain clinical research, sales and marketing practices and the provision of certain items and services to our customers, could be subject to challenge under one or more of such privacy and data security laws. The heightening compliance environment and the need to build and maintain robust and secure systems to comply with different privacy compliance and/or

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reporting requirements in multiple jurisdictions could increase the possibility that we may fail to comply fully with one or more of these requirements. If our operations are found to be in violation of any applicable privacy or data security laws or regulations, we may be subject to penalties, including potentially significant criminal, civil and administrative penalties, damages, fines, imprisonment, contractual damages, reputational harm, diminished profits and future earnings, additional reporting requirements and/or oversight if we become subject to a consent decree or similar agreement to resolve allegations of non-compliance with these laws, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. To the extent that we collect or otherwise process personal information, we may be subject to privacy or data protection laws that are in effect in such third countries foreign laws.

### ***Regulation and Procedures Governing Approval of Medicinal Products Outside the United States***

In order to market any product outside of the United States, a company must also comply with numerous and varying regulatory requirements of other countries and jurisdictions regarding quality, safety and efficacy and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of products. Whether or not it obtains FDA approval for a product, an applicant will need to obtain the necessary approvals by the comparable foreign regulatory authorities before it can commence clinical trials or marketing of the product in those countries or jurisdictions. For example, the process governing approval of medicinal products in the European Union generally follows the same lines as in the United States. It entails satisfactory completion of preclinical studies and adequate and well-controlled clinical trials to establish the safety and efficacy of the product for each proposed indication. It also requires the submission to the relevant competent authorities of a marketing authorization application (MAA) and granting of a marketing authorization by these authorities before the product can be marketed and sold in the European Union.

### ***Clinical Trial Approval***

Pursuant to the currently applicable Clinical Trials Directive 2001/20/EC and the Directive 2005/28/EC on GCP, a system for the approval of clinical trials in the European Union has been implemented through national legislation of the member states. Under this system, an applicant must obtain approval from the national competent authority of a European Union member state in which the clinical trial is to be conducted, or in multiple member states if the clinical trial is to be conducted in a number of member states. Furthermore, the applicant may only start a clinical trial at a specific site after an independent ethics committee has issued a favorable opinion. The clinical trial application must be accompanied by an investigational medicinal product dossier with supporting information prescribed by Directive 2001/20/EC and Directive 2005/28/EC and corresponding national laws of the member states. All suspected unexpected serious adverse reactions to the investigated drug that occur during the clinical trial have to be reported to the national competent authorities and ethics committees of the member state where they occurred.

In April 2014, the European Union adopted a new Clinical Trials Regulation (EU) No 536/2014 (CTR), which is set to replace the current Clinical Trials Directive. It is expected that the CTR will become fully applicable at the end of January 2022. It will overhaul the current system of approvals for clinical trials in the European Union. Specifically, the new legislation, which will be directly applicable in all member states, aims at simplifying and streamlining the approval of clinical trials in the European Union, simplifying adverse-event reporting procedures, improving the supervision of clinical trials and increasing their transparency. For instance, the CTR provides for a streamlined application procedure via a single-entry point and strictly defined deadlines for the assessment of clinical trial applications. Parties conducting certain clinical trials must, as in the United States, post clinical trial information in the European Union at the EudraCT website: <https://eudract.ema.europa.eu>.

### ***PRIME Designation in the European Union***

In March 2016, the European Medicines Agency (EMA) launched an initiative to facilitate development of therapeutic candidates in indications, often rare, for which few or no therapies currently exist. The PRiority

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MEDicines (PRIME), scheme is intended to encourage drug development in areas of unmet medical need and provides accelerated assessment of products representing substantial innovation reviewed under the centralized procedure. Eligible products must target conditions for which there is an unmet medical need (there is no satisfactory method of diagnosis, prevention or treatment in the European Economic Area (EEA) or, if there is, the new medicine will bring a major therapeutic advantage) and they must demonstrate the potential to address the unmet medical need by introducing new methods of therapy or improving existing ones. Products from small- and medium-sized enterprises may qualify for earlier entry into the PRIME scheme than larger companies. Many benefits accrue to sponsors of therapeutic candidates with PRIME designation, including but not limited to, early and proactive regulatory dialogue with the EMA, frequent discussions on clinical trial designs and other development program elements, and accelerated marketing authorization application assessment once a dossier has been submitted. Importantly, a dedicated EMA contact and rapporteur from the Committee for Human Medicinal Products (CHMP), or Committee for Advanced Therapies are appointed early in the PRIME scheme facilitating increased understanding of the product at the EMA's Committee level. A kick-off meeting initiates these relationships and includes a team of multidisciplinary experts at the EMA to provide guidance on the overall development and regulatory strategies. Where, during the course of development, a medicine no longer meets the eligibility criteria, support under the PRIME scheme may be withdrawn.

### ***Marketing Authorization***

To obtain a marketing authorization for a product under the European Union regulatory system, an applicant must submit an MAA, either under a centralized procedure administered by the EMA or one of the procedures administered by competent authorities in European Union member states (decentralized procedure, national procedure, or mutual recognition procedure). A marketing authorization may be granted only to an applicant established in the European Union. Regulation (EC) No 1901/2006 provides that prior to obtaining a marketing authorization in the European Union, an applicant must demonstrate compliance with all measures included in an EMA-approved Pediatric Investigation Plan (PIP), covering all subsets of the pediatric population, unless the EMA has granted a product-specific waiver, class waiver or a deferral for one or more of the measures included in the PIP. The Paediatric Committee of the EMA (PDCO), may grant deferrals for some medicines, allowing a company to delay development of the medicine for children until there is enough information to demonstrate its effectiveness and safety in adults. The PDCO may also grant waivers when development of a medicine for children is not needed or is not appropriate, such as for diseases that only affect the elderly population. The respective requirements for all marketing authorization procedures are laid down in Regulation (EC) No 1901/2006, the so-called Paediatric Regulation. This requirement also applies when a company wants to add a new indication, pharmaceutical form or route of administration for a medicine that is already authorized. Products that are granted a marketing authorization with the results of the pediatric clinical trials conducted in accordance with the PIP (even where such results are negative) are eligible for six months' supplementary protection certificate extension. In the case of orphan medicinal products, a two-year extension of the orphan market exclusivity may be available. This pediatric reward is subject to specific conditions and is not automatically available when data in compliance with the PIP are developed and submitted.

The centralized procedure provides for the grant of a single marketing authorization by the European Commission that is valid for all European Union member states, as well as the additional member states of the European Economic Area (Norway, Iceland and Liechtenstein) (EEA). Pursuant to Regulation (EC) No. 726/2004, the centralized procedure is compulsory for specific products, including for medicines produced by certain biotechnological processes, products designated as orphan medicinal products, advanced therapy medicinal products (gene-therapy, somatic cell-therapy or tissue-engineered medicines) and products with a new active substance indicated for the treatment of certain diseases, including products for the treatment of cancer, HIV / AIDS, neurodegenerative disorders, diabetes, auto-immune and other immune dysfunctions and viral diseases. The centralized procedure is optional for products containing a new active substance not yet authorized in the European Union, or for products that constitute a significant therapeutic, scientific or technical innovation or which are in the interest of public health in the European Union. Manufacturers must demonstrate the quality,

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safety and efficacy of their products to the EMA, which provides an opinion regarding the MAA. The European Commission grants or refuses marketing authorization in light of the opinion delivered by the EMA.

Under the centralized procedure, the CHMP established at the EMA is responsible for conducting an initial assessment of a product. The maximum timeframe for the evaluation of an MAA is 210 days, excluding clock stops when additional information or written or oral explanation is to be provided by the applicant in response to questions of the CHMP. Clock stops may extend the timeframe of evaluation of an MAA considerably beyond 210 days. Where the CHMP gives a positive opinion, the EMA provides the opinion together with supporting documentation to the European Commission, who make the final decision to grant a marketing authorization, which is issued within 67 days of receipt of the EMA's recommendation. Accelerated evaluation may be granted by the CHMP in exceptional cases, when a medicinal product is of major interest from the point of view of public health and, in particular, from the viewpoint of therapeutic innovation. If the CHMP accepts such a request, the time limit of 210 days will be reduced to 150 days (excluding clock stops), but it is possible that the CHMP may revert to the standard time limit for the centralized procedure if it determines that it is no longer appropriate to conduct an accelerated assessment.

National marketing authorizations, which are issued by the competent authorities of the member states of the EEA and only cover their respective territory, are available for products not falling within the mandatory scope of the centralized procedure. Where a product has already been authorized for marketing in a member state of the EEA, this national authorization can be recognized in other member states through the mutual recognition procedure. If the product has not received a national authorization in any member state at the time of application, it can be approved simultaneously in various member states through the decentralized procedure.

Now that the UK (which comprises Great Britain and Northern Ireland) has left the European Union, Great Britain will no longer be covered by centralized marketing authorizations (under the Northern Irish Protocol, centralized marketing authorizations will continue to be recognized in Northern Ireland). All medicinal products with a current centralized marketing authorization were automatically converted to Great Britain marketing authorizations on January 1, 2021. For a period of two years from January 1, 2021, the Medicines and Healthcare Products Regulatory Agency (MHRA), the UK medicines regulator, may rely on a decision taken by the European Commission on the approval of a new marketing authorization in the centralized procedure, in order to more quickly grant a new Great Britain marketing authorization. A separate application will, however, still be required.

### ***Regulatory Data Protection in the European Union***

In the European Union, new chemical entities (including both small molecules and biological medicinal products) approved on the basis of a complete independent data package qualify for eight years of data exclusivity upon marketing authorization and an additional two years of market exclusivity pursuant to Regulation (EC) No 726/2004, as amended, and Directive 2001/83/EC, as amended. Data exclusivity, if granted, prevents generic or biosimilar applicants from referencing the innovator's pre-clinical and clinical trial data contained in the dossier of the reference product when applying for a generic or biosimilar marketing authorization, for a period of eight years from the date on which the reference product was first authorized in the European Union. During the additional two-year period of market exclusivity, a generic or biosimilar marketing authorization application can be submitted, and the innovator's data may be referenced, but no medicinal product can be marketed until the expiration of the market exclusivity. The overall ten-year period will be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to authorization, is held to bring a significant clinical benefit in comparison with existing therapies. Even if a compound is considered to be a new chemical entity so that the innovator gains the prescribed period of data exclusivity, another company may market another version of the product if such company obtained marketing

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authorization based on an MAA with a complete independent data package of pharmaceutical tests, preclinical tests and clinical trials.

### *Patent Term Extensions in the European Union and Other Jurisdictions*

The European Union also provides for patent term extension through SPCs. The rules and requirements for obtaining a SPC are similar to those in the United States. An SPC may extend the term of a patent for up to five years after its originally scheduled expiration date and can provide up to a maximum of fifteen years of marketing exclusivity for a drug. In certain circumstances, these periods may be extended for six additional months if pediatric exclusivity is obtained; and in the case of orphan medicinal products, a two-year extension of the orphan market exclusivity may be available. Although SPCs are available throughout the European Union, sponsors must apply on a country-by-country basis. Similar patent term extension rights exist in certain other foreign jurisdictions outside the European Union.

### *Periods of Authorization and Renewals*

A marketing authorization is valid for five years, in principle, and it may be renewed indefinitely after five years on the basis of a reevaluation of the risk-benefit balance by the EMA or by the competent authority of the authorizing member state. To that end, the marketing authorization holder must provide the EMA or the competent authority with a consolidated version of the file in respect of quality, safety and efficacy, including all variations introduced since the marketing authorization was granted, at least six months before the marketing authorization ceases to be valid. Once renewed, the marketing authorization is valid for an unlimited period, unless the European Commission or the competent authority decides, on justified grounds relating to pharmacovigilance, to proceed with one additional five-year renewal period. Any authorization that is not followed by the placement of the drug on the European Union market (in the case of the centralized procedure) or on the market of the authorizing member state (in the case of a national procedure) within three years after authorization, or which is not placed on the market for a consecutive period of three years at any time during its authorization, ceases to be valid.

### *Regulatory Requirements After Marketing Authorization*

Following approval, the holder of the marketing authorization is required to comply with a range of requirements applicable to the manufacturing, marketing, promotion and sale of the medicinal product, and must adhere in strict compliance with the applicable European Union laws, regulations and guidance, including Directive 2001/83/EC, Directive 2003/94/EC, Regulation (EC) No 726/2004 and the European Commission Guidelines for Good Manufacturing Practice. These include compliance with the European Union's stringent pharmacovigilance or safety reporting rules, pursuant to which post-authorization studies and additional monitoring obligations can be imposed. In addition, the manufacturing of authorized products, for which a separate manufacturer's license is mandatory, must also be conducted in strict compliance with the EMA's GMP requirements and comparable requirements of other regulatory bodies in the European Union, which mandate the methods, facilities and controls used in manufacturing, processing and packing of drugs to assure their safety and identity.

Much like the Anti-Kickback Statute prohibition in the United States, the provision of benefits or advantages to physicians to induce or encourage the prescription, recommendation, endorsement, purchase, supply, order or use of medicinal products is also prohibited in the European Union. The provision of benefits or advantages to induce or reward improper performance generally is usually governed by the national anti-bribery laws of European Union member states and the Bribery Act 2010 in the UK. Infringement of these laws could result in substantial fines and imprisonment. EU Directive 2001/83/EC, which is the EU Directive governing medicinal products for human use, further provides that, where medicinal products are being promoted to persons qualified to prescribe or supply them, no gifts, pecuniary advantages or benefits in kind may be supplied, offered or promised to such persons unless they are inexpensive and relevant to the practice of medicine or pharmacy. This

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provision has been transposed into the Human Medicines Regulations 2012 and so remains applicable in the UK despite its departure from the European Union.

Payments made to physicians in certain European Union member states must be publicly disclosed. Moreover, agreements with physicians often must be the subject of prior notification and approval by the physician's employer, his or her competent professional organization and/or the regulatory authorities of the individual EU member states. These requirements are provided in the national laws, industry codes or professional codes of conduct, applicable in the EU member states. Failure to comply with these requirements could result in reputational risk, public reprimands, administrative penalties, fines or imprisonment.

The advertising and promotion of medicinal products is also subject to laws concerning promotion of medicinal products, interactions with physicians, misleading and comparative advertising and unfair commercial practices. All advertising and promotional activities for the product must be consistent with the approved summary of product characteristics, and therefore all off-label promotion is prohibited. Direct-to-consumer advertising of prescription medicines is also prohibited in the European Union. Although general requirements for advertising and promotion of medicinal products are established under European Union directives, the details are governed by regulations in each member state and can differ from one country to another.

### ***Orphan Drug Designation and Exclusivity***

Regulation (EC) No 141/2000 and Regulation (EC) No. 847/2000 provide that a product can be designated as an orphan drug by the European Commission if its sponsor can establish that the product is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition, where either (i) such condition affects not more than five in ten thousand persons in the European Union when the application is made, or (ii) without incentives it is unlikely that the marketing of the drug in the European Union would generate sufficient return to justify the necessary investment in its development. For either of these conditions, the applicant must demonstrate that there exists no satisfactory method of diagnosis, prevention or treatment of the condition in question that has been authorized in the European Union or, if such method exists, the drug will be of significant benefit to those affected by that condition.

An orphan drug designation provides a number of benefits, including fee reductions, regulatory assistance and the possibility to apply for a centralized European Union marketing authorization. Marketing authorization for an orphan drug leads to a ten-year period of market exclusivity being granted following marketing approval of the orphan product. During this market exclusivity period, the EMA, the European Commission or the member states may only grant marketing authorization to a "similar medicinal product" for the same therapeutic indication if: (i) a second applicant can establish that its product, although similar to the authorized product, is safer, more effective or otherwise clinically superior; (ii) the marketing authorization holder for the authorized product consents to a second orphan medicinal product application; or (iii) the marketing authorization holder for the authorized product cannot supply enough orphan medicinal product. A "similar medicinal product" is defined as a medicinal product containing a similar active substance or substances as contained in an authorized orphan medicinal product, and which is intended for the same therapeutic indication. The market exclusivity period for the authorized therapeutic indication may, however, be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan drug designation because, for example, the product is sufficiently profitable not to justify market exclusivity. Orphan drug designation must be requested before submitting an application for marketing approval. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

### ***Brexit and the Regulatory Framework in the United Kingdom***

In June 2016, the electorate in the UK voted in favor of leaving the European Union (commonly referred to as "Brexit"). A transition period began on February 1, 2020, during which European Union pharmaceutical law remained applicable to the UK, which ended on December 31, 2020. However, the European Union and the UK

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have concluded a trade and cooperation agreement, or TCA, which was provisionally applicable since January 1, 2021 and has been formally applicable since May 1, 2021. The TCA includes specific provisions concerning pharmaceuticals, which include the mutual recognition of GMP, inspections of manufacturing facilities for medicinal products and GMP documents issued, but does not foresee wholesale mutual recognition of UK and European Union pharmaceutical regulations. At present, Great Britain has implemented European Union legislation on the marketing, promotion and sale of medicinal products through the Human Medicines Regulations 2012 (as amended) (under the Northern Ireland Protocol, the European Union regulatory framework will continue to apply in Northern Ireland). The regulatory regime in Great Britain therefore currently broadly aligns with European Union regulations, however it is possible that these regimes will diverge in future now that Great Britain's regulatory system is independent from the European Union and the TCA does not provide for mutual recognition of UK and European Union pharmaceutical legislation.

In addition, once we begin to conduct business in the United Kingdom, we will be subject to stringent data protection laws that are in effect in the United Kingdom. As of January 1, 2021, the United Kingdom's European Union (Withdrawal) Act 2018 incorporated the GDPR (as it existed on December 31, 2020 but subject to certain UK specific amendments) into UK law, referred to as the UK GDPR. The UK GDPR and the UK Data Protection Act 2018 set out the United Kingdom's data protection regime, which is independent from but aligned to the European Union's data protection regime. Non-compliance with the UK GDPR may result in monetary penalties of up to £17.5 million or 4% of worldwide revenue, whichever is higher.

### *General Data Protection Regulation*

Once we begin processing of personal data regarding individuals in the European Union, including personal health data, our activities will be subject to the GDPR, which became effective on May 25, 2018. The GDPR is wide-ranging in scope and imposes numerous requirements on companies that process personal data, including requirements relating to processing health and other sensitive data, obtaining consent of the individuals to whom the personal data relates, providing information to individuals regarding data processing activities, implementing safeguards to protect the security and confidentiality of personal data, providing notification of data breaches and taking certain measures when engaging third-party processors. The GDPR also imposes strict rules on the transfer of personal data to countries outside the European Union, including the United States, and permits data protection authorities to impose large penalties for violations of the GDPR, including potential fines of up to €20 million or 4% of annual global revenues, whichever is greater. The GDPR also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies and obtain compensation for damages resulting from violations of the GDPR. Compliance with the GDPR will be a rigorous and time-intensive process that may increase the cost of doing business or require us to change our business practices to ensure full compliance.

### *Coverage and Reimbursement*

In the United States and markets in other countries, patients generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. Adequate coverage and reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors is critical to new product acceptance. Our ability to successfully commercialize our product candidates will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Even if coverage is provided, the approved reimbursement amount may not be high enough to allow us to establish or maintain pricing sufficient to realize a sufficient return on our investment. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels.

There is also significant uncertainty related to the insurance coverage and reimbursement of newly approved products and coverage may be more limited than the purposes for which the medicine is approved by the FDA or

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comparable foreign regulatory authorities. In the United States, the principal decisions about reimbursement for new medicines are typically made by the Centers for Medicare & Medicaid Services, or CMS, an agency within the U.S. Department of Health and Human Services. CMS decides whether and to what extent a new medicine will be covered and reimbursed under Medicare and private payors tend to follow CMS to a substantial degree.

Factors payors consider in determining reimbursement are based on whether the product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Further, net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that reimbursement will be available for any product candidate that we commercialize and, if reimbursement is available, the level of reimbursement. In addition, many pharmaceutical manufacturers must calculate and report certain price reporting metrics to the government, such as average sales price, or ASP, and best price. Penalties may apply in some cases when such metrics are not submitted accurately and timely. Further, these prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its Member States to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost effectiveness of a particular product candidate to currently available therapies. A Member State may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our product candidates. Historically, products launched in the European Union do not follow price structures of the U.S. and generally prices tend to be significantly lower.

### ***Healthcare Reform***

Payors, whether domestic or foreign, or governmental or private, are developing increasingly sophisticated methods of controlling healthcare costs and those methods are not always specifically adapted for new technologies such as gene therapy and therapies addressing rare diseases such as those we are developing. In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory changes to the health care system that could impact our ability to sell our products profitably. In particular, in 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively, the ACA, was enacted, which, among other things, subjected biologic products to potential competition by lower-cost biosimilars; addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected; increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program; extended the Medicaid Drug Rebate program to utilization of



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prescriptions of individuals enrolled in Medicaid managed care organizations; subjected manufacturers to new annual fees and taxes for certain branded prescription drugs; created a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% (increased to 70% pursuant to the Bipartisan Budget Act of 2018, effective as of January 1, 2019) point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D; and provided incentives to programs that increase the federal government's comparative effectiveness research.

Since its enactment, there have been numerous judicial, administrative, executive and legislative challenges to certain aspects of the ACA. On June 17, 2021, the U.S. Supreme Court dismissed the most recent judicial challenge to the ACA brought by several states without specifically ruling on the constitutionality of the ACA. Prior to the Supreme Court's decision, President Biden issued an Executive Order to initiate a special enrollment period from February 15, 2021 through August 15, 2021 for purposes of obtaining health insurance coverage through the ACA marketplace. The Executive Order also instructed certain governmental agencies to review and reconsider their existing policies and rules that limit access to healthcare, including among others, reexamining Medicaid demonstration projects and waiver programs that include work requirements, and policies that create unnecessary barriers to obtaining access to health insurance coverage through Medicaid or the ACA. It is unclear how other healthcare reform measures of the Biden administrations or other efforts, if any, to challenge repeal or replace the ACA, will impact our business.

Other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. For example, on March 11, 2021, President Biden signed the American Rescue Plan Act of 2021 into law, which eliminates the statutory Medicaid drug rebate cap, currently set at 100% of a drug's average manufacturer price, for single source and innovator multiple source drugs, beginning January 1, 2024. Further, in August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least \$1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs, including aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect in April 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030 unless additional action is taken by Congress. Pursuant to the Coronavirus Aid, Relief, and Economic Security Act, also known as the CARES Act, as well as subsequent legislation, these reductions have been suspended from May 1, 2020 through December 31, 2021 due to the COVID-19 pandemic.

Further, on May 30, 2018, the Right to Try Act, was signed into law. The law, among other things, provides a federal framework for certain patients to access certain investigational new drug products that have completed a Phase 1 clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA permission under the FDA expanded access program. There is no obligation for a pharmaceutical manufacturer to make its drug products available to eligible patients as a result of the Right to Try Act.

### ***Other Healthcare Laws***

Pharmaceutical companies are subject to additional healthcare regulation and enforcement by the federal government and by authorities in the states and foreign jurisdictions in which they conduct their business that may constrain the financial arrangements and relationships through which we research, as well as sell, market and distribute any products for which we obtain marketing authorization. Such laws include, without limitation, state and federal anti-kickback, fraud and abuse, false claims and transparency laws and regulations related to drug pricing and payments and other transfers of value made to physicians and other healthcare providers. If our operations are found to be in violation of any of such laws or any other governmental regulations that apply, we may be subject to penalties, including, without limitation, administrative, civil and criminal penalties, damages, fines, disgorgement, the curtailment or restructuring of operations, integrity oversight and reporting obligations, exclusion from participation in federal and state healthcare programs and responsible individuals may be subject to imprisonment.

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### Employees and Human Capital Resources

As of August 31, 2021, we had 26 full-time employees and 13 consultants; 12 of our employees have M.D. or Ph.D. degrees. Within our workforce, 18 employees are engaged in research and development and 8 are engaged in business development, finance, legal, and general management and administration. Our human capital resources objectives include identifying, recruiting, retaining, incentivizing and integrating our existing and new employees, advisors and consultants. None of our employees are represented by a labor union or covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

### Facilities

Our corporate headquarters is located in Cambridge, Massachusetts, where we lease and occupy 1,249 square feet of office and laboratory space. The current term of our Cambridge lease expires on April 1, 2022 with an option to continue thereafter on a month to month basis unless terminated by either party upon written notice.

In September 2021, we also entered into a lease agreement for 19,734 square feet of laboratory and office space in Watertown, Massachusetts. The current term of our Watertown lease expires ten years after the lease commencement date, which is anticipated to be in the second quarter of 2022, and includes an option to extend the term with at least 15 months' notice and rent set at an agreed upon market rate.

We believe our existing facilities in Cambridge and Watertown are sufficient for our needs for the foreseeable future. To meet the future needs of our business, we may lease additional or alternate space, and we believe suitable additional or alternative space will be available in the future on commercially reasonable terms.

### Legal Proceedings

From time to time, we may become involved in litigation or other legal proceedings. We are not currently a party to any litigation or legal proceedings that, in the opinion of our management, are probable to have a material adverse effect on our business. Regardless of outcome, litigation can have an adverse impact on our business, financial condition, results of operations and prospects because of defense and settlement costs, diversion of management resources and other factors.

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## MANAGEMENT

## Executive Officers and Directors

The following table sets forth the name, age and position of each of our executive officers and directors as of August 31, 2021.

<u>Name</u>	<u>Age</u>	<u>Position</u>
<b>Executive Officers:</b>		
Ivana Magovčević-Liebisch, PhD, JD	54	President, Chief Executive Officer and Director
Jennifer Ziolkowski, CPA	47	Chief Financial Officer
Richard A. Fisher, PhD	70	Chief Scientific Officer
Spyros Papapetropoulos, MD, PhD	48	Chief Medical Officer
Evan A. Thackaberry, PhD, DABT	49	Senior Vice President, Head of Early Development
<b>Non-Executive Directors:</b>		
Bruce Booth, D.Phil	47	Chairman of the Board
Cheryl Renee Blanchard, PhD	57	Director
Shaan Gandhi, MD, PhD, MBA	35	Director
Gerhard Koenig, PhD	61	Director
Clay Bernardin Thorp	53	Director
Stefan Vitorovic, MS, MBA	36	Director

**Executive Officers**

**Ivana Magovčević-Liebisch, PhD, JD**, has served as our President and Chief Executive Officer and as a member of our board of directors since July 2020. Prior to Vigil, Dr. Magovčević-Liebisch was Executive Vice President, Chief Business Officer at Ipsen from March 2018 to April 2020, where she led the External Innovation, Business Development and Alliance Management functions. Prior to Ipsen, Dr. Magovčević-Liebisch was Executive Vice President, Chief Strategy and Corporate Development Officer at Axcella Health Inc. (NASDAQ: AXLA) from May 2017 to March 2018, and Senior Vice President, Head of Global Business Development for the specialty drug business at Teva Pharmaceutical Industries Ltd. (NYSE: TEVA) from March 2013 to May 2017. Dr. Magovčević-Liebisch previously worked at Dyax Corp. (acquired by Shire plc (NASDAQ: SHPG)) from April 2001 to March 2013 in management roles of increasing scope and responsibility, including Executive Vice President and Chief Operating Officer, where she launched the company's first drug, Kalbitor® for an orphan indication, Hereditary Angiodema. Dr. Magovčević-Liebisch began her biopharma career at Transkaryotic Therapies, Inc., where she was Director of Intellectual Property and Patent Counsel from 1998 to 2001. Dr. Magovčević-Liebisch is currently the Chairperson of the board of directors of ABSCI Corporation (NASDAQ: ABSI), and a member of the board of directors of Applied Genetic Technologies Corporation (NASDAQ: AGTC) and Aeglea BioTherapeutics, Inc. (NASDAQ: AGLE). She is also a trustee of the Boston Museum of Science and of the Boston Ballet, and overseer of Beth Israel Deaconess Medical Center. She received a BA in Biology and Chemistry from Wheaton College, a PhD in Genetics from Harvard University, and a JD in High Technology Law from Suffolk University Law School. We believe Dr. Magovčević-Liebisch's over 20 years of senior management experience in biotechnology and pharmaceutical industry make her well qualified to serve on our board of directors.

**Jennifer Ziolkowski, CPA**, has served as our Chief Financial Officer since March 2021. Prior to joining Vigil, Ms. Ziolkowski was Chief Financial Officer of Solid Biosciences Inc. (NASDAQ: SLDB) from May 2017 to January 2021, where she played a key role in transforming Solid from a private, preclinical company to a

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publicly-held, clinical-stage biotech company. Previously, Ms. Ziolkowski held various leadership positions at Philips Healthcare from August 2008 to May 2017, most recently as Head of Sales Operations, North America of Philips Healthcare from 2015 to May 2017. Prior to Phillips, Ms. Ziolkowski was Senior Director of Finance and Corporate Controller of TransMedics, Inc. from April 2007 to July 2008, where she played a critical role in building the company's financial operations. Ms. Ziolkowski established her career within the healthcare industry at Cytoc Corporation (acquired by Hologic, Inc. (NASDAQ:HOLX)) from May 2001 to April 2007. Ms. Ziolkowski began her career at PricewaterhouseCoopers LLP from September 1996 to April 2001. Ms. Ziolkowski holds a BS in Accounting from Boston College and is a Certified Public Accountant.

**Richard A. Fisher, PhD**, has served as our Chief Scientific Officer since August 2020. Prior to Vigil, he was a management consultant for Flagship Pioneering (previously known as Flagship Ventures) from August 2019 to August 2020, during which he worked in Serqet Therapeutics, Inc., a start-up founded by Flagship. Dr. Fisher served as President and acting Chief Executive Officer at Proclara Biosciences, Inc. from September 2018 to December 2019 and as Chief Scientific Officer at Proclara from January 2008 to December 2019, where he was the first employee and built the company's novel technology platform for neurodegenerative diseases, leading R&D growth from discovery through clinical-stage testing in Alzheimer's Disease. Before Proclara, Dr. Fisher was Chief Scientific Officer of Intranasal Therapeutics Inc. (now Ikano Therapeutics Inc.) from November 2006 to March 2008, where he led the early development for Nayzilam®, an acute seizure medication. Previously, he served as Senior Vice President, Research & Product Development at GlycoFi, Inc. (acquired by Merck & Co., Inc. (NYSE: MRK)) from March 2005 to September 2006. Dr. Fisher received his PhD from University of Iowa as an NIH Genetics Predoctoral Trainee and was an American Cancer Society postdoctoral fellow at the University of Chicago.

**Spyros Papapetropoulos, MD, PhD**, has served as our Chief Medical Officer since September 2020. Dr. Papapetropoulos also currently serves as a member of the board of directors of Adamas Pharmaceuticals, Inc. (NASDAQ: ADMS) and as a consultant in neurology at Massachusetts General Hospital. He is the founder and President of Encephalos Life Sciences LLC, a neurosciences consulting company. Prior to joining Vigil, Dr. Papapetropoulos served as Chief Development Officer and Senior Vice President, Head of Development at Acadia Pharmaceuticals Inc. (NASDAQ: ACAD) from November 2019 to September 2020, Chief Executive Officer at SwanBio Therapeutics, Inc. from April 2019 to September 2019, and Head of Research & Development and Chief Medical Officer at Cavion, Inc. (acquired by Jazz Pharmaceuticals plc (NASDAQ: JAZZ)) from June 2017 to April 2019. Before Cavion, Dr. Papapetropoulos held management roles at a number of companies, including Teva Pharmaceutical Industries Ltd. (NYSE: TEVA) from February 2015 to June 2017, Pfizer Inc. (NYSE: PFE) from March 2012 to February 2015, Allergan plc (NYSE: AGN) from May 2010 to March 2012, and Biogen Inc. (NASDAQ: BIIB) from April 2008 to May 2010. Dr. Papapetropoulos was a research professor and subsequently a volunteer professor of neurology at the University of Miami, Miller School of Medicine from November 2008 until August 2017. Dr. Papapetropoulos received his MD and PhD from University of Patras, School of Health Sciences.

**Evan A. Thackaberry, PhD, DABT**, has served as our Senior Vice President, Head of Early Development since September 2020. Dr. Thackaberry joined Vigil from Ra Pharmaceuticals, Inc. (NASDAQ: RARX), where he served as Vice President of Nonclinical Development from October 2017 to March 2020. Prior to Ra Pharma, Dr. Thackaberry worked at Genentech, Inc. (NYSE: DNA) from July 2010 to September 2017, holding positions of increasing responsibility, including Ophthalmology Platform Team Leader, Research Team Lead, and Safety Assessment Therapeutic Area Leader. Dr. Thackaberry began his career as a regulatory and investigative toxicologist at the Schering-Plough Research Institute from 2005 to 2010. Dr. Thackaberry received his PhD in Environmental and Molecular Toxicology from the University of Wisconsin-Madison.

### **Non-Executive Directors**

**Bruce Booth, D.Phil**, has served as Chairman of our board of directors since June 2020. Dr. Booth joined Atlas Venture in 2005, and currently serves as a partner of Atlas Venture. Dr. Booth currently serves as

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Chairman of Kymera Therapeutics, Inc. (NASDAQ: KYMR) and AvroBio, Inc. (NASDAQ: AVRO). He is the co-founder of Kymera and was President and Chief Executive Officer of Kymera from September 2015 to August 2017. Dr. Booth is also a board member of several public and privately held companies, including Magenta Therapeutics, Inc. (NASDAQ: MGTA), Nimbus Therapeutics, LLC, HotSpot Therapeutics, Inc., and Arkuda Therapeutics, Inc. Dr. Booth previously served on the boards of directors of Unum Therapeutics, Inc. (NASDAQ: UMRX) from February 2018 to July 2020, Miragen Therapeutics, Inc. (NASDAQ: VRDN) from 2007 to December 2018, and Zafgen, Inc. (now Larimar Therapeutics, Inc. (NASDAQ: LRMR)) from August 2006 to June 2018. Dr. Booth holds a PhD in Molecular Immunology from Oxford University's Nuffield Department of Medicine and a BS in Biochemistry from Pennsylvania State University. We believe Dr. Booth's extensive leadership, executive, managerial and business experience with life sciences companies, including experience in the formation, development and business strategy of multiple start-up companies in the life sciences sector qualifies him to serve on our board of directors.

**Cheryl Renee Blanchard, PhD**, has served as a member of our board of directors since November 2020. Dr. Blanchard has served as President and Chief Executive Officer of Anika Therapeutics, Inc. (NASDAQ: ANIK) since April 2020 after serving as interim Chief Executive Officer since February 2020 and has served on Anika's board since August of 2018. Dr. Blanchard is also a current board member of Daré Bioscience, Inc. (NASDAQ: DARE). Prior to her work as an executive officer at Anika, she was President and Chief Executive Officer of Microchips Biotech, Inc. from July 2014 until its sale to Daré Bioscience in November 2019. From July 2018 to July 2019, Dr. Blanchard served as President and Chief Executive Officer of Keratin Biosciences, Inc., a privately-held biotechnology company created by the business combination of Microchips Biotech, Inc. and KeraNetics, LLC. From September 2012 to April 2020, Dr. Blanchard was Principal at Blanchard Consulting, LLC which provided consulting services to life science companies and private equity clients. Dr. Blanchard previously served on the board of directors of SeaSpine Holdings Corp (NASDAQ: SPNE) from July 2015 to May 2019 and Neuronetics, Inc. (NASDAQ: STIM) from February 2019 to July 2020. Dr. Blanchard received her MS and PhD in Materials Science and Engineering from the University of Texas at Austin and her BS in Ceramic Engineering from Alfred University. We believe Dr. Blanchard is qualified to serve on our board of directors because she is a biotech Chief Executive Officer, experienced as a public company board member, and for her strong scientific background in biologics and regenerative medicine and her extensive experience in management, research and product development, business development, and regulatory affairs at multiple companies in the life science industry.

**Shaan Gandhi, MD, PhD, MBA**, has served as a member of our board of directors since September 2020. Since January 2020, Dr. Gandhi has served as a Director at Northpond Ventures, LLC, a global science, medical and technology-focused venture capital firm. Previously, Dr. Gandhi was a Principal at the Longwood Fund from June 2018 to January 2020, where he created and invested in life sciences companies, including Pyxis Oncology, Inc., a cancer immunotherapy company focused on novel modulators of the tumor microenvironment, which he co-founded and served as President. He was an attending hospitalist at Massachusetts General Hospital from June 2018 to July 2019, where he also did his residency in internal medicine from June 2015 to June 2018. He serves on the boards of directors of various private companies, including CAMP4 Therapeutics Corporation, Garuda Therapeutics, Inc., Mestag Therapeutics, Inc., Parthenon Therapeutics Inc. and Totus Medicines Inc., and of public companies, including Candel Therapeutics, Inc. (NASDAQ: CADL) and DICE Therapeutics, Inc. (NASDAQ: DICE). He holds an MD from Harvard Medical School, an MBA from Harvard Business School, where he was a Baker Scholar, a PhD in Medical Oncology from the University of Oxford, where he was a Rhodes Scholar, and a BS with honors in Biochemistry from Case Western Reserve University. We believe that Dr. Gandhi's financial, managerial and medical experience coupled with his substantial experience as an investor in emerging biotechnology companies provides him with the appropriate set of skills to serve as a member of the board of directors.

**Gerhard Koenig, PhD**, has served as a member of our board of directors since July 2020. Dr. Koenig currently serves as an Entrepreneur in Residence with Atlas Venture since November 2017 and as Co-Founder, President and Chief Executive Officer of Arkuda Therapeutics, Inc. since February 2018. He also served as an

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advisor on the scientific advisory board at Disarm Therapeutics, Inc. from February 2017 to December 2020. From June 2016 to October 2017, Dr. Koenig was Chief Executive Officer of Quartet Medicine, Inc., a biotechnology company focused on non-opioid pain medications. Before that, he was Chief Scientific Officer and Senior Vice President of FORUM Pharmaceuticals Inc., a pharmaceutical company owned by Fidelity Investments, from February 2003 to May 2016. Dr. Koenig was Vice President, Scientific Programs and Evaluation of Fidelity Biosciences Group (now F-Prime Capital) from September 2002 to December 2004. Dr. Koenig received his PhD and MS in Molecular and Cellular Neurobiology with a minor in Biochemistry, graduating *summa cum laude*, from the University of Heidelberg, Germany. We believe Dr. Koenig is qualified to serve on our board of directors because of his extensive R&D leadership and drug discovery and development experience spanning early discovery through Phase 3 clinical trials as well as his experience working in the venture capital industry.

**Clay Bernardin Thorp** has served as a member of our board of directors since September 2020. Mr. Thorp is an entrepreneur turned venture capitalist. Since 1995, he has co-founded eight companies in the life science arena. In 2000, Mr. Thorp co-founded and has since served as General Partner of Hatteras Venture Partners, a venture capital partnership that manages over \$700 million across six vintages, where he leads investments and numerous strategic transaction processes in a range of life science companies, including biopharmaceuticals, medical devices, diagnostics, and research informatics. Some of these companies include G1 Therapeutics, Inc. (NASDAQ: GTHX), Clearside Biomedical, Inc. (NASDAQ: CLSD), Lysosomal Therapeutics, Inc., Asthmatx, Inc., PhaseBio Pharmaceuticals, Inc. (NASDAQ: PHAS), ArtusLabs, Inc., Embrella Cardiovascular, Inc., Kymera Therapeutics, Inc. (NASDAQ: KYMR), and Synthematix, Inc. In addition to serving on our board, Mr. Thorp currently serves as Chairman of PhaseBio Pharmaceuticals, Inc. (NASDAQ: PHAS), and as a member of the board of directors of Clearside Biomedical, Inc. (NASDAQ: CLSD), StrideBio, Inc., GeneCentric Therapeutics, Inc., and Seaport Diagnostics, Inc. He is also on the Strategic and Scientific Advisory Board of Bii Biosciences, Inc. Mr. Thorp serves on the Chancellor's Philanthropic Committee at the University of North Carolina at Chapel Hill (UNC-Chapel Hill), the Board of Visitors of the Lineberger Comprehensive Cancer Center at UNC-Chapel Hill, and the board of the North Carolina School of Science and Mathematics Foundation. Mr. Thorp holds a Master in Public Policy from Harvard University and a BA in Mathematics and Art History from UNC-Chapel Hill. We believe Mr. Thorp is qualified to serve on our board of directors because of his deep experience in the biopharmaceutical, medical device, diagnostics and research informatics life science investment sectors as well as his expertise in the founding of several life sciences companies.

**Stefan Vitorovic, MS, MBA**, has served as a member of our board of directors since August 2021. Mr. Vitorovic is the co-founder and Managing Director of Vida Ventures, a role he has served in since January 2017. Prior to founding Vida Ventures, Mr. Vitorovic was an investment professional at Third Rock Ventures, an early-stage life sciences venture capital firm, from July 2014 to January 2017. At Third Rock, he was part of the founding team of Decibel Therapeutics, Inc., a hearing-focused drug discovery and development platform company. Before Third Rock, he was an investor at TPG Capital from August 2012 to June 2014, where he focused on majority, control stakes in healthcare companies. Mr. Vitorovic worked on a variety of equity and debt financings, including Aptalis Pharmaceutical Technologies (now Adare Pharma Solutions) and Biomet, Inc. (now Zimmer Biomet Holdings, Inc. (NYSE: ZBH)). Prior to TPG, Mr. Vitorovic was an investment banker at Credit Suisse's healthcare banking group from 2004 to 2008. Mr. Vitorovic currently serves on the board of directors of Praxis Precision Medicines, Inc. (NASDAQ: PRAX), Tectonic Therapeutics, Volastra Therapeutics, Inc., and BAIT Therapeutics, Inc. He was previously a board observer of Oyster Point Pharma, Inc. (NASDAQ: OYST), Dyne Therapeutics (NASDAQ: DYN), and Volastra Therapeutics, Inc., and a board member of Kyverna Therapeutics, Inc. and Sutro Biopharma, Inc. (NASDAQ: STRO). He received a BS with Honors in Biological Sciences and an MS in Biology from Stanford University, where he conducted biomedical research in the lab of Dr. Helen Blau at Stanford Medical School. Mr. Vitorovic received his MBA from Harvard Business School. We believe Mr. Vitorovic is qualified to serve on our board of directors because of his deep expertise in in life sciences research and investing, as well as his extensive experience in new company formation and operations.

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### Composition of Our Board of Directors

Our board consists of seven members, each of whom are members pursuant to the board composition provisions of our second amended and restated certificate of incorporation and agreements with our stockholders. These board composition provisions will terminate upon the completion of this offering. Upon the termination of these provisions, there will be no further contractual obligations regarding the election of our directors. Our nominating and corporate governance committee and our board of directors may therefore consider a broad range of factors relating to the qualifications and background of nominees. Our nominating and corporate governance committee's and our board of directors' priority in selecting board members is identification of persons who will further the interests of our stockholders through their established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, knowledge of our business, understanding of the competitive landscape, professional and personal experiences, and expertise relevant to our growth strategy. Our directors hold office until their successors have been elected and qualified or until the earlier of their resignation or removal. Our third amended and restated certificate of incorporation that will become effective upon the closing of this offering and amended and restated bylaws that will become effective upon the effectiveness of the registration statement of which this prospectus is a part, also provide that our directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds of the votes that all our stockholders would be entitled to cast in an annual election of directors, and that any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

### Director Independence

Our board of directors has determined that all members of the board of directors, except Ivana Magovčević-Liebisch, are independent directors, including for purposes of the rules of the Nasdaq Global Market and the SEC. In making such independence determination, our board of directors considered the relationships that each non-employee director has with us and all other facts and circumstances that our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director. In considering the independence of the directors listed above, our board of directors considered the association of our directors with the holders of more than 5% of our common stock. Upon the completion of this offering, we expect that the composition and functioning of our board of directors and each of our committees will comply with all applicable requirements of the Nasdaq Global Market and the rules and regulations of the SEC. There are no family relationships among any of our directors or executive officers. Dr. Magovčević-Liebisch is not an independent director under these rules because she is the President and Chief Executive Officer of the Company.

### Staggered Board

In accordance with the terms of our third amended and restated certificate of incorporation that will become effective upon the closing of this offering and our amended and restated bylaws that will become effective upon the effectiveness of the registration statement of which this prospectus is a part, our board of directors will be divided into three staggered classes of directors and each will be assigned to one of the three classes. At each annual meeting of the stockholders, a class of directors will be elected for a three-year term to succeed the directors of the same class whose terms are then expiring. The terms of the directors will expire upon the election and qualification of successor directors at the annual meeting of stockholders to be held during the years \_\_\_\_\_ for Class I directors, \_\_\_\_\_ for Class II directors and \_\_\_\_\_ for Class III directors.

- Our Class I directors will be \_\_\_\_\_ ; and .
- Our Class II directors will be \_\_\_\_\_ ; and .
- Our Class III directors will be \_\_\_\_\_ ; and .

Our third amended and restated certificate of incorporation that will become effective upon the closing of this offering and amended and restated bylaws that will become effective upon the effectiveness of the

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registration statement of which this prospectus is a part provide that the number of our directors shall be fixed from time to time by a resolution of the majority of our board of directors.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent stockholder efforts to effect a change of our management or a change in control.

### Board Leadership Structure

Currently, the role of chairman of the board of directors is separated from the role of Chief Executive Officer. Our Chief Executive Officer is responsible for recommending strategic decisions and capital allocation to the board of directors and to ensure the execution of the recommended plans. The chairman of the board of directors is responsible for leading the board of directors in its fundamental role of providing advice to and independent oversight of management. Our board of directors recognizes the time, effort and energy that the Chief Executive Officer is required to devote to his position in the current business environment, as well as the commitment required to serve as our chairman, particularly as the board of directors' oversight responsibilities continue to grow. While our amended and restated bylaws and corporate governance guidelines will not require that our chairman and Chief Executive Officer positions be separate, our board of directors believes that having separate positions is the appropriate leadership structure for us at this time and demonstrates our commitment to good corporate governance.

### Role of the Board in Risk Oversight

Risk is inherent with every business, and how well a business manages risk can ultimately determine its success. We face a number of risks, including the four risks more fully discussed in the section entitled "Business" appearing elsewhere in this prospectus. Management is responsible for the day-to-day management of risks we face, while our board of directors, as a whole and through its committees, has responsibility for the oversight of risk management. In its risk oversight role, our board of directors has the responsibility to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed.

The role of the board of directors in overseeing the management of our risks is conducted primarily through committees of the board of directors, as disclosed in the descriptions of each of the committees below and in the charters of each of the committees. The full board of directors (or the appropriate board committee in the case of risks that are under the purview of a particular committee) discusses with management our major risk exposures, their potential impact on us, and the steps we take to manage them. When a board committee is responsible for evaluating and overseeing the management of a particular risk or risks, the chairman of the relevant committee reports on the discussion to the full board of directors during the committee reports portion of the next board meeting. This enables the board of directors and its committees to coordinate the risk oversight role, particularly with respect to risk interrelationships.

### Committees of Our Board of Directors

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee, each of which will operate pursuant to a charter to be adopted by our board of directors that will be effective upon the effectiveness of the registration statement of which this prospectus is a part. The board of directors may also establish other committees from time to time to assist the Company and the board of directors. Upon the effectiveness of the registration statement of which this prospectus is a part, the composition and functioning of all of our committees will comply with all applicable requirements of the Sarbanes-Oxley Act of 2002, Nasdaq and SEC rules and regulations, if applicable. Upon our listing on Nasdaq, each committee's charter will be available on our website at [www.vigilneuro.com](http://www.vigilneuro.com). The reference to our website address does not constitute incorporation by reference of the information contained at or available through our website, and you should not consider it to be part of this prospectus.



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### *Audit Committee*

, and serve on the audit committee, which is chaired by . Our board of directors has determined that each member of the audit committee is “independent” for audit committee purposes as that term is defined by the rules of the SEC and Nasdaq, and that each has sufficient knowledge in financial and auditing matters to serve on the audit committee. Our board of directors has designated as an “audit committee financial expert,” as defined under the applicable rules of the SEC. The audit committee’s responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the overall audit plan with our independent registered public accounting firm and members of management responsible for preparing our consolidated financial statements;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- coordinating the oversight and reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- recommending, based upon the audit committee’s review and discussions with management and our independent registered public accounting firm, whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related person transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing quarterly earnings releases.

### *Compensation Committee*

, and serve on the compensation committee, which is chaired by . Our board of directors has determined that each member of the compensation committee is “independent” as defined in the Nasdaq listing standards. The compensation committee’s responsibilities include:

- annually reviewing and recommending to the board of directors the corporate goals and objectives relevant to the compensation of our Chief Executive Officer;
- evaluating the performance of our Chief Executive Officer in light of such corporate goals and objectives and based on such evaluation: (i) recommending to the board of directors the cash compensation of our Chief Executive Officer, and (ii) reviewing and approving grants and awards to our Chief Executive Officer under equity-based plans;
- reviewing and approving the cash compensation of our other executive officers;
- reviewing and establishing our overall management compensation, philosophy and policy;
- overseeing and administering our compensation and similar plans;

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- reviewing and approving the retention or termination of any consulting firm or outside advisor to assist in the evaluation of compensation matters and evaluating and assessing potential and current compensation advisors in accordance with the independence standards identified in the Nasdaq listing standards;
- retaining and approving the compensation of any compensation advisors;
- reviewing and approving our policies and procedures for the grant of equity-based awards;
- reviewing and recommending to the board of directors the compensation of our directors; and
- preparing the compensation committee report required by SEC rules, if and when required, to be included in our annual proxy statement.

### ***Nominating and Corporate Governance Committee***

, and serve on the nominating and corporate governance committee, which is chaired by . Our board of directors has determined that each member of the nominating and corporate governance committee is “independent” as defined in the Nasdaq listing standards. The nominating and corporate governance committee’s responsibilities include:

- developing and recommending to the board of directors criteria for board and committee membership;
- establishing procedures for identifying and evaluating board of director candidates, including nominees recommended by stockholders;
- reviewing the composition of the board of directors to ensure that it is composed of members containing the appropriate skills and expertise to advise us;
- identifying individuals qualified to become members of the board of directors;
- recommending to the board of directors the persons to be nominated for election as directors and to each of the board’s committees;
- reviewing and recommending to the board of directors appropriate corporate governance guidelines; and
- overseeing the evaluation of our board of directors.

### **Compensation Committee Interlocks and Insider Participation**

None of the members of our compensation committee has at any time during the prior three years been one of our officers or employees. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

### **Corporate Governance**

Prior to the effectiveness of the registration statement of which this prospectus is a part, we will adopt a written code of business conduct and ethics that applies to our directors, officers, and employees, including our principal executive officer, principal financial officer, principal accounting officer, or controller, or persons performing similar functions. Following the effectiveness of the registration statement of which this prospectus is a part, a current copy of this code will be posted on the Corporate Governance section of our website, which is located at [www.vigilneuro.com](http://www.vigilneuro.com). The information on our website is deemed not to be incorporated in this prospectus or to be a part of this prospectus. If we make any substantive amendments to, or grant any waivers from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K.

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### Limitations on Liability and Indemnification Matters

As permitted by Delaware law, provisions in our third amended and restated certificate of incorporation, which will become effective immediately prior to the closing of this offering, and amended and restated bylaws, which became effective upon the effectiveness of this registration statement, limit or eliminate the personal liability of directors for a breach of their fiduciary duty of care as a director. The duty of care generally requires that, when acting on behalf of the corporation, a director exercise an informed business judgment based on all material information reasonably available to him or her. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any act related to unlawful stock repurchases, redemptions or other distributions or payments of dividends; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not limit or eliminate our rights or any stockholder's rights to seek non-monetary relief, such as injunctive relief or rescission. These provisions will not alter a director's liability under other laws, such as the federal securities laws or other state or federal laws. Our third amended and restated certificate of incorporation that will become effective immediately prior to the closing of this offering also authorizes us to indemnify our officers, directors and other agents to the fullest extent permitted under Delaware law.

As permitted by Delaware law, our amended and restated bylaws, which became effective upon the effectiveness of this registration statement will provide that:

- we will indemnify our directors, officers, employees and other agents to the fullest extent permitted by law;
- we must advance expenses to our directors and officers, and may advance expenses to our employees and other agents, in connection with a legal proceeding to the fullest extent permitted by law; and
- the rights provided in our amended and restated bylaws are not exclusive.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director or officer, then the liability of our directors or officers will be so eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our amended and restated bylaws will also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in connection with their services to us, regardless of whether our bylaws permit such indemnification. We have obtained such insurance.

In addition to the indemnification that will be provided for in our third amended and restated certificate of incorporation and amended and restated bylaws, we plan to enter into separate indemnification agreements with each of our directors and executive officers, which may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements may require us, among other things, to indemnify our directors and executive officers for some expenses, including attorneys' fees, expenses, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of his service as one of our directors or executive officers or any other company or enterprise to which the person provides services at our request. We believe that these provisions and agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

This description of the indemnification provisions of our third amended and restated certificate of incorporation, our amended and restated bylaws and our indemnification agreements is qualified in its entirety by

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reference to these documents, each of which is attached as an exhibit to the registration statement of which this prospectus forms a part.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable.

There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

**Rule 10b5-1 Sales Plans**

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend a Rule 10b5-1 plan in some circumstances and may terminate a plan at any time. Our directors and executive officers also may buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material nonpublic information subject to compliance with the terms of our insider trading policy. Prior to 180 days after the date of this offering, subject to early termination, the sale of any shares under such plans would be prohibited by the lock-up agreement that the director or officer has entered into with the underwriters.

**FOIA Confidential Treatment Requested****EXECUTIVE COMPENSATION**

The following discussion contains forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding our future compensation programs. The actual amount and form of compensation and the compensation policies and practices that we adopt in the future may differ materially from currently planned programs as summarized in this discussion.

As an emerging growth company, we have opted to comply with the executive compensation disclosure rules applicable to “smaller reporting companies,” as such term is defined in the rules promulgated under the Securities Act. The compensation provided to our named executive officers for the fiscal year ended December 31, 2020 is detailed in the 2020 Summary Compensation Table and accompanying footnotes and narrative that follow. Our named executive officers for the fiscal year ended December 31, 2020 are:

- Ivana Magovčević-Liebisch, PhD, JD, our President and Chief Executive Officer;
- Richard A. Fisher, PhD, our Chief Scientific Officer; and
- Spyridon (Spyros) Papapetropoulos, MD, PhD; our Chief Medical Officer.

To date, the compensation of our named executive officers has consisted of a combination of base salary, cash bonuses and long-term incentive compensation in the form of stock options and restricted stock awards. Our named executive officers, like all of our full-time employees, are eligible to participate in our health and welfare benefit plans. As we transition from a private company to a publicly traded company, we intend to evaluate our compensation values and philosophy and compensation plans and arrangements as circumstances require.

**2020 Summary Compensation Table**

The following table shows the total compensation earned by, or paid to, our named executive officers for services rendered to us in all capacities during the fiscal year ended December 31, 2020.

<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Bonus (\$)</u>	<u>Stock Awards (\$)(4)</u>	<u>Option Awards (\$)(5)</u>	<u>Non-Equity Incentive Plan Compensation (\$)</u>	<u>All Other Compensation (\$)</u>	<u>Total (\$)</u>
Ivana Magovčević-Liebisch, PhD, JD (1) <i>President and Chief Executive Officer</i>	2020	203,699	—	434,950	1,633,879	197,800	—	2,470,328
Richard A. Fisher, PhD(2) <i>Chief Scientific Officer</i>	2020	111,269	—	—	345,890	40,040	—	497,199
Spyros Papapetropoulos, MD, PhD(3) <i>Chief Medical Officer</i>	2020	115,253	30,000(6)	—	408,820	38,853	—	592,926

- (1) Dr. Magovčević-Liebisch commenced employment with us on July 10, 2020. Her annual base salary for 2020 was \$430,000.
- (2) Dr. Fisher commenced employment with us on August 31, 2020. His annual base salary for 2020 was \$330,000.
- (3) Dr. Papapetropoulos commenced employment with us on September 14, 2020. His annual base salary for 2020 was \$385,000.
- (4) The amount reported represents the aggregate grant date fair value of the restricted stock award granted to Dr. Magovčević-Liebisch during our fiscal year ended December 31, 2020, computed in accordance with Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 718. Such grant date fair value does not take into account any estimated forfeitures related to service-based vesting. A discussion of the assumptions used in determining grant date fair value may be found in Note 6 to our financial statements for the year ended December 31, 2020, included elsewhere in this prospectus. This amount does not correspond to the actual value that may be recognized by Dr. Magovčević-Liebisch upon the vesting of such award or sale of the underlying shares of stock.

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- (5) The amounts reported represent the aggregate grant date fair value of stock option awards granted to our named executive officers during our fiscal year ended December 31, 2020, computed in accordance with FASB ASC Topic 718. Such grant date fair values do not take into account any estimated forfeitures related to service-based vesting. For performance-based stock options, the value reported reflects the value of the award at the grant date based upon the probable outcome of the performance conditions, which is assumed to be the maximum level of achievement. A discussion of the assumptions used in determining grant date fair value may be found in Note 6 to our financial statements for the year ended December 31, 2020, included elsewhere in this prospectus. These amounts do not correspond to the actual value that may be recognized by the named executive officers upon exercise of the applicable award or sale of the underlying shares of stock.
- (6) The amount reported represents a signing bonus paid to Dr. Papapetropoulos pursuant to his employment agreement with the Company, which is subject to repayment in the event he decides to leave the Company within the first 18 months of his employment.

### Narrative Disclosure to Summary Compensation Table

#### 2020 Base Salaries

Our named executive officers each receive a base salary to compensate them for services rendered to our Company. The base salary payable to each named executive officer is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities. Base salaries are expected to be reviewed annually, typically in connection with our annual performance review process, approved by our board of directors or the compensation committee of the board of directors, and may be adjusted from time to time to realign salaries with market levels after taking into account individual responsibilities, performance and experience.

The annual base salaries for each of our named executive officers for the fiscal year ended December 31, 2020 are set forth in the table below:

<u>Name</u>	<u>Annual Base Salary</u>
Ivana Magovčević-Liebisch	\$ 430,000
Richard A. Fisher	\$ 330,000
Spyros Papapetropoulos	\$ 385,000

#### 2020 Cash Bonuses

For the fiscal year ended December 31, 2020, each of the named executive officers was eligible to earn an annual cash bonus based on the achievement of certain corporate performance milestones. The target annual bonus for each of our named executive officers for the fiscal year ended December 31, 2020 was equal to the percentage of the executive's respective annual base salary specified below:

<u>Name</u>	<u>Target Bonus Percentage</u>
Ivana Magovčević-Liebisch	40%
Richard A. Fisher	32.5%
Spyros Papapetropoulos	30%

Each named executive officer's annual cash bonus is determined by reference to the achievement of pre-determined corporate, research and development, clinical and regulatory, as well as chemistry manufacturing and controls goals. Following review and determinations of corporate performance for 2020, the board of directors determined that the corporate performance goals were achieved at 115% of target. The cash bonuses for

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Drs. Papapetropoulos and Fisher were prorated for the fiscal year 2020 based on the number of days the executive officer was employed during the fiscal year. The annual cash bonus paid to each of our named executive officers for the fiscal year ended December 31, 2020 is set forth in the “Non-Equity Incentive Plan Compensation” column of the “2020 Summary Compensation Table” above.

In addition, in the fiscal year ended December 31, 2020, Dr. Papapetropoulos received the first \$30,000 installment of the \$80,000 signing bonus payable to him pursuant to the terms of his employment agreement with the Company, which signing bonus is subject to repayment in the event that Dr. Papapetropoulos decides to leave the Company within the first 18 months of his employment.

**Equity-Based Compensation**

Although we do not yet have a formal policy with respect to the grant of equity incentive awards to our executive officers, we believe that equity grants provide our executives with a strong link to our long-term performance, create an ownership culture and help to align the interests of our executives and our stockholders. In addition, we believe that equity grants promote executive retention because they incentivize our executive officers to remain in our employment during the vesting period. Accordingly, our board of directors or our compensation committee periodically reviews the equity incentive compensation of our named executive officers and may grant equity incentive awards to them from time to time. In furtherance of these goals, in 2020 each of our named executive officers was granted a stock option award or awards and Dr. Magovčević-Liebisch received a restricted stock award. For additional information regarding outstanding equity awards held by our named executive officers as of December 31, 2020, see the “Outstanding Equity Awards at 2020 Fiscal Year End” table below.

**Outstanding Equity Awards at 2020 Fiscal Year End**

The following table lists all outstanding equity awards held by our named executive officers as of December 31, 2020.

Name	Option Awards <sup>(1)</sup>				Stock Awards		
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$) <sup>(2)</sup>
Ivana Magovčević-Liebisch	—	1,024,285 <sup>(3)</sup>	—	0.68	11/18/2030	—	—
	—	—	635,118 <sup>(4)</sup>	0.68	11/18/2030	—	—
	—	—	—	—	—	427,084 <sup>(5)</sup>	—
Richard A. Fisher	—	351,971 <sup>(6)</sup>	—	0.68	11/18/2030	—	—
Spyros Papapetropoulos	—	415,714 <sup>(7)</sup>	—	0.68	11/18/2030	—	—

- (1) Each option award was granted under the Vigil Neuroscience, Inc. 2020 Equity Incentive Plan, or the 2020 Plan.
- (2) Represents the fair market value of the shares that were unvested as of December 31, 2020. The fair market value assumes an initial public offering price of \$ per share, which is the midpoint of the price range set forth on the cover page of this prospectus.
- (3) Represents an option to purchase shares of our common stock granted on November 19, 2020. The shares underlying this option vests as follows: 25% of the shares vested on July 10, 2021 and the remainder shares

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vest in equal monthly installments thereafter, subject to the executive's Continued Service (as defined in the 2020 Plan) through the applicable vesting date. In the event of a Change in Control (as defined in the 2020 Plan), 100% of the shares will become fully vested upon consummation of such Change in Control. In the event of a termination of the executive's Continued Service without Cause (as defined in the 2020 Plan) or by the executive for Good Reason (as defined in the 2020 Plan), the option will vest with respect to the number of shares which would have vested if the executive's Continued Service had continued for a period of 12 months following the date of such termination.

- (4) Represents an option to purchase shares of our common stock granted on November 19, 2020. The shares underlying this option vest in equal monthly installments over 48 months, subject to the achievement of certain performance conditions by October 31, 2021. The performance conditions were achieved on May 28, 2021, and the shares underlying this option vest in equal monthly installments over 48 months following such date, subject to the executive's Continued Service through the applicable vesting date. In the event of a Change in Control, 100% of the shares will become fully vested upon consummation of such Change in Control. In the event of a termination of the executive's Continued Service without Cause or by the executive for Good Reason, the option will vest with respect to the number of shares which would have vested if the executive's Continued Service had continued for a period of 12 months following the date of such termination.
- (5) Represents restricted shares granted on July 8, 2020. The shares vest in equal monthly installments commencing on May 1, 2020, in each case, subject to the executive's continued service through the applicable vesting date. In the event of a Change in Control, 100% of the shares will become fully vested upon consummation of the Change in Control. In the event of a termination of the executive's service without Cause (as defined in the award agreement) or by the executive for Good Reason (as defined in the award agreement), 50% of the then-unvested shares will become fully vested as of such termination.
- (6) Represents an option to purchase shares of our common stock granted on November 19, 2020. The shares underlying this option vests as follows: 25% of the shares vested on August 31, 2021 and the remainder vest in equal monthly installments thereafter, subject to the executive's Continued Service to the Company through the applicable vesting date. In the event of an Involuntary Termination (as defined in the executive's offer letter with the Company) that occurs within 30 days of or in connection with a Change in Control (as defined in the 2020 Plan), 100% of the shares will vest as of the date of such Involuntary Termination.
- (7) Represents an option to purchase shares of our common stock granted on November 19, 2020. The shares underlying this option vests as follows: 25% of the shares vested on September 14, 2021 and the remainder vest in equal monthly installments thereafter, subject to the executive's Continued Service to the Company through the applicable vesting date. In the event of an Involuntary Termination (as defined in the executive's offer letter with the Company) that occurs within 30 days of or in connection with a Change in Control (as defined in the 2020 Plan), 100% of the shares will vest as of the date of such Involuntary Termination.

### Executive Compensation Arrangements

In connection with this offering, we intend to enter into a new employment agreement with our named executive officers that will be effective as of the closing of this offering.

#### *Employment Arrangements in Place Prior to the Offering for Named Executive Officers*

##### *Ivana Magovčević-Liebisch*

On July 17, 2020, we entered into an offer letter with Dr. Magovčević-Liebisch, or the Magovčević-Liebisch Offer Letter, for the position of President and Chief Executive Officer. The Magovčević-Liebisch Offer letter provides for Dr. Magovčević-Liebisch's at-will employment. Dr. Magovčević-Liebisch's current annual base salary is \$450,000, and she is eligible to receive an annual bonus with a target amount of 45% of her annual base salary. The Magovčević-Liebisch Offer Letter provides that Dr. Magovčević-Liebisch's 2020 annual bonus



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will not be pro-rated. Dr. Magovčević-Liebisch is eligible to participate in the employee benefit plans available to our employees, subject to the terms of those plans. The Magovčević-Liebisch Offer Letter provides that all unvested equity awards held by Dr. Magovčević-Liebisch will vest immediately prior to a Change in Control (as defined in the Magovčević-Liebisch Offer Letter). In the event Dr. Magovčević-Liebisch is subject to an Involuntary Termination (as defined in the Magovčević-Liebisch Offer Letter and which entails a termination of her employment by the Company without Cause or a Resignation for Good Reason), subject to her execution and non-revocation of a separation agreement, including a general release of claims in favor of the Company, Dr. Magovčević-Liebisch is entitled to a payment equal to (i) 12 months of her then-effective base salary, plus any earned but unpaid bonus for the year prior to the year of termination and an amount equal to the accrued pro-rated target bonus during the year of termination, (ii) if Dr. Magovčević-Liebisch is participating in the Company's group health plan immediately prior to her last day of employment and she elects COBRA health continuation, a monthly cash payment for 12 months, in an amount equal to the monthly employer contribution the Company would have paid to provide her with health insurance had she remained employed; and (iii) accelerated vesting of her outstanding equity awards as further described in the footnotes to the Outstanding Equity Awards at Fiscal Year-End table above. In addition, if an Involuntary Termination occurs within 30 days of or in connection with a Change in Control (as defined in the Magovčević-Liebisch Offer Letter), the unvested portion of Dr. Magovčević-Liebisch's outstanding equity awards will accelerate and vest in full. Dr. Magovčević-Liebisch has also entered into an Employee Confidential Information and Inventions Assignment Agreement that contains various restrictive covenants, including, non-competition and non-solicitations provisions that apply during her employment and for one year thereafter.

*Richard A. Fisher*

On August 15, 2020, we entered into an offer letter with Dr. Fisher, or the Fisher Offer Letter, for the position of Chief Scientific Officer. The Fisher Offer Letter provides for Dr. Fisher's at-will employment. Dr. Fisher's current annual base salary is \$340,230, and he is eligible to receive an annual bonus with a target amount of 32.5% of his annual base salary. Dr. Fisher is eligible to participate in the employee benefit plans available to our employees, subject to the terms of those plans. In the event Dr. Fisher is subject to an Involuntary Termination (as defined in the Fisher Offer Letter and which entails a termination of his employment by the Company without Cause or a Resignation for Good Reason), subject to his execution and non-revocation of a separation agreement, including a general release of claims in favor of the Company, Dr. Fisher is entitled to a payment equal to (i) six months of his then-effective base salary, plus any earned but unpaid bonus for the year prior to the year of termination and an amount equal to the accrued pro-rated target bonus during the year of termination, and (ii) if Dr. Fisher is participating in the Company's group health plan immediately prior to his last day of employment and he elects COBRA health continuation, a monthly cash payment for six months, in an amount equal to the monthly employer contribution the Company would have paid to provide the Dr. Fisher with health insurance if he had remained employed. In addition, if such a termination event occurs within 30 days of or in connection with a Change in Control (as defined in the Fisher Offer Letter), the unvested portion of Dr. Fisher's outstanding equity awards will accelerate and vest in full. Dr. Fisher has also entered into an Employee Confidential Information and Inventions Assignment Agreement that contains various restrictive covenants, including, non-competition and non-solicitations provisions that apply during his employment and for one year thereafter.

*Spyridon Papapetropoulos*

On August 31, 2020, we entered into an offer letter with Dr. Papapetropoulos, or the Papapetropoulos Offer Letter, for the position of Chief Medical Officer. The Papapetropoulos Offer Letter provides for Dr. Papapetropoulos's at-will employment. Dr. Papapetropoulos's current annual base salary is \$396,935, and he is eligible to receive an annual bonus with a target amount of 30% of his annual base salary. Pursuant to the Papapetropoulos Offer Letter, Dr. Papapetropoulos is also entitled to an \$80,000 signing bonus, with \$30,000 of the signing bonus payable during the first month of his employment and the remaining \$50,000 payable on the first anniversary of his start date. The signing bonus is subject to repayment in the event Dr. Papapetropoulos

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decides to leave the Company within the first 18 months of his employment. Dr. Papapetropoulos is eligible to participate in the employee benefit plans available to our employees, subject to the terms of those plans. In the event Dr. Papapetropoulos is subject to an Involuntary Termination (as defined in the Papapetropoulos Offer Letter and which entails a termination of his employment by the Company without Cause or a Resignation for Good Reason), subject to his execution and non-revocation of a separation agreement, including a general release of claims in favor of the Company, Dr. Papapetropoulos is entitled to a payment equal to (i) six months of his then-effective base salary, plus any earned but unpaid bonus for the year prior to the year of termination and an amount equal to the accrued pro-rated target bonus during the year of termination, and (ii) if Dr. Papapetropoulos is participating in the Company's group health plan immediately prior to his last day of employment and he elects COBRA health continuation, a monthly cash payment for six months, in an amount equal to the monthly employer contribution the Company would have paid to provide the Dr. Papapetropoulos with health insurance if he had remained employed. In addition, if such a termination event occurs within 30 days of or in connection with a Change in Control (as defined in the Papapetropoulos Offer Letter), the unvested portion of Dr. Papapetropoulos's outstanding equity awards will accelerate and vest in full. Dr. Papapetropoulos has also entered into an Employee Confidential Information and Inventions Assignment Agreement that contains various restrictive covenants, including, non-competition and non-solicitations provisions that apply during his employment and for one year thereafter.

### Employee Benefit and Equity Compensation Plans

#### *2020 Equity Incentive Plan*

Our 2020 Plan was adopted by our board of directors and approved by our stockholders on September 18, 2020 and was most recently amended on August 12, 2021. Under the 2020 Plan, we have reserved for issuance an aggregate of 9,389,281 shares of our common stock. The maximum number of shares of our common stock that may be issued pursuant to the exercise of incentive stock options under the 2020 Plan is 17,667,843 shares. The number of shares of common stock reserved for issuance and the number of shares that may be issued pursuant to the exercise of stock options are subject to adjustment in the event of any merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, reverse stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure, or other similar equity restructuring transaction.

Shares subject to awards granted under the 2020 Plan that expire or terminate without being exercised in full or that are settled in cash rather than in shares do not reduce the number of shares available for issuance under the 2020 Plan. Additionally, if any shares issued pursuant to a stock award are forfeited or repurchased because of the failure to meet a contingency or condition required to vest, then the shares that are forfeited or repurchased currently revert to and again become available for issuance under the 2020 Plan. This includes shares used to pay the exercise price of a stock award or to satisfy the tax withholding obligations related to a stock award. Following this offering, such shares will be added to the shares of common stock available for issuance under the 2021 Plan.

Our board of directors has acted as administrator of the 2020 Plan. The administrator has full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted, and to determine the specific terms and conditions of each award, subject to the provisions of the 2020 Plan. The plan administrator may delegate its authority under the 2020 Plan to a committee or committees of the board of directors and may delegate to one or more of our officers the authority to (1) designate employees (other than officers) to receive specified awards and (2) determine the number of shares subject to such awards. Persons eligible to participate in the 2020 Plan are those employees, directors and consultants of the Company or an affiliate of the Company as selected from time to time by the administrator in its discretion.

The 2020 Plan permits the granting of (1) options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Internal Revenue Code of 1986, as amended, or the Code, and

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(2) options that do not so qualify. In addition, the 2020 Plan permits the granting of stock appreciation rights, restricted shares of common stock, restricted stock units and other stock awards. The per share exercise price of each option and stock appreciation right is set by the administrator of the 2020 plan but may not be less than 100% of the fair market value of the common stock on the date of grant. The term of each option and stock appreciation right is set by the administrator of the 2020 plan may not exceed 10 years from the date of grant.

The 2020 Plan provides that upon the occurrence of a “corporate transaction,” as defined in the 2020 Plan, the board of directors may take one or more of the following actions: (1) arrange for surviving corporation or acquiring corporation to assume or continue the awards or to substitute a similar award for the stock awards, (2) arrange for the assignment of any reacquisition or repurchase rights held by the Company to the surviving corporation or acquiring corporation, (3) accelerate the vesting, in whole or in part, of any awards and provide for termination of such awards if not exercised (if applicable) at or prior to the effective time of such corporation transaction, (4) arrange for the lapse of any reacquisition or repurchase right held by the Company with respect to the award, (5) cancel or arrange for the cancellation of stock awards, to the extent not vested or exercised prior to the effective time of the corporate transaction, in exchange for cash consideration (including no consideration) as the board of directors may determine, and (6) make a payment in an amount per share equal to the excess, if any, of the value of the consideration payable per share of common stock and over any exercise price.

The board of directors may amend, suspend or terminate the 2020 Plan at any time, subject to stockholder approval where such approval is required by applicable law. The administrator of the 2020 Plan may also amend or cancel any outstanding award, provided that no amendment to an award may materially adversely affect a participant’s rights without his or her consent.

The 2020 Plan will automatically terminate upon the day before of the tenth anniversary of the earlier of date on which the 2020 Plan was initially adopted by our board of directors or the date the 2020 Plan was initially approved by our stockholders. As of August 31, 2021, options to purchase 7,720,416 shares of common stock were outstanding under the 2020 Plan. Our board of directors has determined not to make any further awards under the 2020 Plan following the closing of this offering.

### ***2021 Stock Option and Incentive Plan***

Our 2021 Plan, was adopted by our board of directors on \_\_\_\_\_, 2021, approved by our stockholders on \_\_\_\_\_, 2021 and will become effective upon the date immediately preceding the date on which the registration statement of which this prospectus is part is declared effective by the SEC. The 2021 Plan will replace the 2020 Plan as our board of directors has determined not to make additional awards under the 2020 Plan following the closing of our initial public offering. However, the 2020 Plan will continue to govern outstanding equity awards granted thereunder. The 2021 Plan allows us to make equity-based and cash-based incentive awards to our officers, employees, directors and consultants.

We have initially reserved \_\_\_\_\_ shares of our common stock for the issuance of awards under the 2021 Plan, or the Initial Limit. The 2021 Plan provides that the number of shares reserved and available for issuance under the 2021 Plan will automatically increase on January 1, 2023 and each January 1 thereafter, by \_\_\_\_\_ % of the outstanding number of shares of our common stock on the immediately preceding December 31 or such lesser number of shares as determined by our compensation committee, or the Annual Increase. The number of shares reserved under the 2021 Plan is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

The shares we issue under the 2021 Plan will be authorized but unissued shares or shares that we reacquire. The shares of common stock underlying any awards under the 2021 Plan and the 2020 Plan that are forfeited, cancelled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without the issuance of stock, expire or are otherwise terminated (other than by exercise) will be added back to the shares of common stock available for issuance under the 2021 Plan.

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The maximum number of shares of common stock that may be issued in the form of incentive stock options shall not exceed the Initial Limit, cumulatively increased on January 1, 2023 and on each January 1 thereafter by the lesser of the Annual Increase for such year or \_\_\_\_\_ shares of common stock.

The grant date fair value of all awards made under our 2021 Plan and all other cash compensation paid by us to any non-employee director in any calendar year for services as a non-employee director shall not exceed \$ \_\_\_\_\_; provided, however, that such amount shall be \$ \_\_\_\_\_ for the calendar year in which the applicable non-employee director is initially elected or appointed to the board of directors.

The 2021 Plan will be administered by our compensation committee. Our compensation committee has the full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted and the number of shares subject to such awards, to make any combination of awards to participants, to accelerate at any time the exercisability or vesting of any award and to determine the specific terms and conditions of each award, subject to the provisions of the 2021 Plan. Persons eligible to participate in the 2021 Plan will be those full or part-time officers, employees, non-employee directors and consultants as selected from time to time by our compensation committee in its discretion.

The 2021 Plan permits the granting of both options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code and options that do not so qualify. The option exercise price of each option will be determined by our compensation committee but generally may not be less than 100% of the fair market value of our common stock on the date of grant unless the option (i) is granted pursuant to a transaction described in, and in a manner consistent with Section 424(a) of the Code, (ii) is granted to an individual who is not subject to U.S. income tax or (iii) complies with Section 409A of the Code. The term of each option will be fixed by our compensation committee and may not exceed 10 years from the date of grant. Our compensation committee will determine at what time or times each option may be exercised.

Our compensation committee may award stock appreciation rights under the 2021 Plan subject to such conditions and restrictions as it may determine. Stock appreciation rights entitle the recipient to shares of common stock, or cash, equal to the value of the appreciation in our stock price over the exercise price. The exercise price of each stock appreciation right will be determined by our compensation committee but generally may not be less than 100% of the fair market value of our common stock on the date of grant unless the stock appreciation right (i) is granted pursuant to a transaction described in, and in a manner consistent with Section 424(a) of the Code, (ii) is granted to an individual who is not subject to U.S. income tax or (iii) complies with Section 409A of the Code. The term of each stock appreciation right will be fixed by our compensation committee and may not exceed 10 years from the date of grant. Our compensation committee will determine at what time or times each stock appreciation right may be exercised.

Our compensation committee may award restricted shares of common stock and restricted stock units to participants subject to such conditions and restrictions as it may determine. These conditions and restrictions may include the achievement of certain performance goals and/or continued employment with us through a specified vesting period. Our compensation committee may also grant shares of common stock that are free from any restrictions under the 2021 Plan. Unrestricted stock may be granted to participants in recognition of past services or for other valid consideration and may be issued in lieu of cash compensation due to such participant.

Our compensation committee may grant dividend equivalent rights to participants that entitle the recipient to receive credits for dividends that would be paid if the recipient had held a specified number of shares of common stock.

Our compensation committee may grant cash bonuses under the 2021 Plan to participants, subject to the achievement of certain performance goals.

The 2021 Plan provides that upon the effectiveness of a "sale event," as defined in the 2021 Plan, an acquirer or successor entity may assume, continue or substitute outstanding awards under the 2021 Plan. To the

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extent that awards granted under the 2021 Plan are not assumed or continued or substituted by the successor entity, upon the effective time of the sale event, such awards shall terminate. In such case, except as may be otherwise provided in the relevant award certificate, all awards with time-based vesting, conditions or restrictions shall become fully vested and nonforfeitable as of the effective time of the sale event and all awards with conditions and restrictions relating to the attainment of performance goals may become vested and nonforfeitable in connection with a sale event in the administrator's discretion or to the extent specified in the relevant award certificate. In the event of such termination, (i) individuals holding options and stock appreciation rights will be permitted to exercise such options and stock appreciation rights (to the extent exercisable) within a specified period of time prior to the sale event or (ii) we may make or provide for a payment, in cash or in kind, to participants holding vested and exercisable options and stock appreciation rights equal to the difference between the per share consideration payable to stockholders in the sale event and the exercise price of the options or stock appreciation rights and we may make or provide for a payment, in cash or in kind, to participants holding other vested awards.

Our board of directors may amend or discontinue the 2021 Plan and our compensation committee may amend or cancel outstanding awards for purposes of satisfying changes in law or any other lawful purpose, but no such action may adversely affect rights under an award without the holder's consent. Certain amendments to the 2021 Plan require the approval of our stockholders. The administrator of the 2021 Plan is specifically authorized to exercise its discretion to reduce the exercise price of outstanding stock options and stock appreciation rights or effect the repricing of such awards through cancellation and re-grants without stockholder consent. No awards may be granted under the 2021 Plan after the date that is 10 years from the effective date of the 2021 Plan. No awards under the 2021 Plan have been made prior to the date of this prospectus.

**2021 Employee Stock Purchase Plan**

Our ESPP was adopted by our board of directors on \_\_\_\_\_, 2021, approved by our stockholders on \_\_\_\_\_, 2021 and will become effective on the date immediately preceding the date on which the registration statement of which this prospectus forms a part is declared effective by the SEC. The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Code. The ESPP initially reserves and authorizes the issuance of up to a total of \_\_\_\_\_ shares of our common stock to participating employees. The ESPP provides that the number of shares reserved and available for issuance will automatically increase on January 1, 2023 and each January 1 thereafter through January 1, 2032, by the least of (i) \_\_\_\_\_ shares of common stock, (ii) \_\_\_\_\_ % of the outstanding number of shares of common stock on the immediately preceding December 31, or (iii) such lesser number of shares of common stock as determined by the administrator of the ESPP. The number of shares reserved under the ESPP is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

All employees who are customarily employed by us or one of our designated subsidiaries for more than \_\_\_\_\_ hours per week and who we have employed for at least \_\_\_\_\_ days are eligible to participate in the ESPP. However, any employee who owns 5% or more of the total combined voting power or value of all classes of our stock will not be eligible to purchase shares of common stock under the ESPP.

We may make one or more offerings each year to our employees to purchase shares under the ESPP. Offerings will usually begin on each \_\_\_\_\_ and \_\_\_\_\_ and will continue for six-month periods, referred to as offering periods. Each eligible employee may elect to participate in any offering by submitting an enrollment form at least 15 business days before the applicable offering date

Each employee who is a participant in the ESPP may purchase shares of our common stock by authorizing payroll deductions of up to 15% of his or her eligible compensation during an offering period. Unless the participating employee has previously withdrawn from the offering, his or her accumulated payroll deductions will be used to purchase shares of our common stock on the last business day of the offering period at a price equal to 85% of the fair market value of the shares of our common stock on the first business day or the last

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business day of the offering period, whichever is lower, provided that no more \$25,000 worth of common stock (or such other lesser maximum number of shares as may be established by the administrator) may be purchased by any one employee during any offering period. Under applicable tax rules, an employee may purchase no more than \$25,000 worth of shares of our common stock, valued at the start of the purchase period, under the ESPP in any calendar year.

The accumulated payroll deductions of any employee who is not a participant on the last day of an offering period will be refunded. An employee's rights under the ESPP terminate upon voluntary withdrawal from the plan or when the employee ceases employment with us for any reason.

The ESPP may be terminated or amended by our board of directors at any time. An amendment that increases the number of shares of our common stock authorized under the ESPP and certain other amendments require the approval of our stockholders.

### ***Senior Executive Cash Incentive Bonus Plan***

On \_\_\_\_\_, 2021 our board of directors adopted the Senior Executive Cash Incentive Bonus Plan, or the Bonus Plan. The Bonus Plan provides for annual cash bonus payments based upon the attainment of Company and individual performance targets established by our compensation committee. The payment targets may be related to financial and operational measures or objectives with respect to our Company, or the Corporate Performance Goals, as well as individual performance objectives.

Our compensation committee may select Corporate Performance Goals from among the following: cash flow (including, but not limited to, operating cash flow and free cash flow); research and development, publication, clinical and/or regulatory milestones; revenue; corporate revenue; earnings before interest, taxes, depreciation and amortization; net income (loss) (either before or after interest, taxes, depreciation and/or amortization); changes in the market price of our common stock; economic value-added; acquisitions or strategic transactions, including collaborations, joint ventures or promotion arrangements; operating income (loss); return on capital assets, equity, or investment; stockholder returns; return on sales; gross or net profit levels; productivity; expense efficiency; margins; operating efficiency; customer satisfaction; working capital; earnings (loss) per share of our common stock; bookings, new bookings or renewals; sales or market shares; number of customers, number of new customers or customer references; operating income and/or net annual recurring revenue; or any other performance goal as selected by the compensation committee, any of which may be measured in absolute terms, as compared to any incremental increase, in terms of growth, as compared to results of a peer group, against the market as a whole, compared to applicable market indices and/or measured on a pre-tax or post-tax basis.

Each executive officer who is selected to participate in the Bonus Plan will have a target bonus opportunity set for each performance period. The bonus formulas will be adopted in each performance period by the compensation committee and communicated to each executive. The Corporate Performance Goals will be measured at the end of each performance period after our financial reports have been published or such other appropriate time as the compensation committee determines. If the Corporate Performance Goals and individual performance objectives are met, payments will be made as soon as practicable following the end of each performance period, but no later than 74 days after the end of the fiscal year in which such performance period ends. Subject to the rights contained in any agreement between the executive officer and us, an executive officer must be employed by us on the bonus payment date to be eligible to receive a bonus payment. The Bonus Plan also permits the compensation committee to approve additional bonuses to executive officers in its sole discretion.

### **401(k) Plan**

We maintain a retirement savings plan, or 401(k) plan, that is intended to qualify for favorable tax treatment under Section 401(a) of the Code, and contains a cash or deferred feature that is intended to meet the

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requirements of Section 401(k) of the Code. U.S. employees who are at least 21 years of age are generally eligible to participate in the 401(k) plan, subject to certain criteria. Participants may make pre-tax and certain after-tax (Roth) salary deferral contributions to the plan from their eligible earnings up to the statutorily prescribed annual limit under the Code. Participants who are 50 years of age or older may contribute additional amounts based on the statutory limits for catch-up contributions. Participant contributions are held in trust as required by law. An employee's interest in his or her salary deferral contributions is 100% vested when contributed. We have the ability to make matching and discretionary contributions under the plan but did not make any contributions to the 401(k) plan in 2020.

**FOIA Confidential Treatment Requested****DIRECTOR COMPENSATION**

The following table presents the total compensation for each person who served as a non-employee member of our board of directors during the year ended December 31, 2020. Other than as set forth in the table and described more fully below, we did not pay any compensation, make any equity awards or non-equity awards to, or pay any other compensation to any of the non-employee members of our board of directors in 2020. We reimburse non-employee members of our board of directors for reasonable travel and out-of-pocket expenses incurred in attending meetings of our board of directors and committees of our board of directors.

<u>Name</u>	<u>Fees Earned or Paid in Cash (\$)</u>	<u>Option Awards \$(1)</u>	<u>All Other Compensation (\$)</u>	<u>Total (\$)</u>
Cheryl Renee Blanchard, PhD <sup>(2)</sup>	4,167	68,315	—	72,482
Bruce Booth, D.Phil <sup>(3)</sup>	—	—	—	—
Shaan Gandhi, MD, PhD, MBA <sup>(4)</sup>	—	—	—	—
Gerhard Koenig, PhD <sup>(5)</sup>	10,302	67,253	—	77,555
Clay Bernardin Thorp <sup>(6)</sup>	—	—	—	—

- (1) The amounts reported represent the aggregate grant date fair value of the stock option awards granted to our directors during 2020, calculated in accordance with FASB ASC Topic 718. Such grant date fair values do not take into account any estimated forfeitures related to service-based vesting. The assumptions used in calculating the grant date fair value of the stock option awards reported in this column are set forth in note 6 of our financial statements included elsewhere in this prospectus. The amounts reported in this column reflect the accounting cost for these stock option awards and do not correspond to the actual economic value that may be received by our directors upon the exercise of the stock option awards or any sale of the underlying shares.
- (2) Dr. Blanchard joined our Board in November 2020. Pursuant to the director offer letter we entered into with Dr. Blanchard as of November 11, 2020, Dr. Blanchard is eligible to receive an annual retainer fee of \$25,000 for her service on our board of directors, as well as an initial grant of an option to purchase a number of shares of common stock equal to 0.25% of the Company's fully diluted capitalization on the date of the offer letter, vesting over a period of four years. Dr. Blanchard's annual cash retainer has been prorated to reflect the date she joined the board of directors. As of December 31, 2020, Dr. Blanchard held an option to purchase 69,286 shares of common stock.
- (3) As of December 31, 2020, Dr. Booth did not hold any outstanding equity awards.
- (4) As of December 31, 2020, Mr. Gandhi did not hold any outstanding equity awards.
- (5) Dr. Koenig joined our Board in July 2020. Pursuant to the director offer letter we entered into with Dr. Koenig as of July 31, 2020, Dr. Koenig is eligible to receive an annual retainer of \$25,000 for his service on our board of directors, as well as an initial grant of an option to purchase 50,000 shares of common stock, vesting in equal monthly installments over three years from the date Dr. Koenig joined the board of directors. Dr. Koenig's annual cash retainer has been prorated to reflect the date he joined the board of directors. As of December 31, 2020, Dr. Koenig held options to purchase 69,286 shares of common stock.
- (6) As of December 31, 2020, Mr. Thorp did not hold any outstanding equity awards.



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**Non-Employee Director Compensation Policy**

In connection with this offering, we intend to adopt a non-employee director compensation policy that will become effective upon the completion of this offering and will be designed to enable us to attract and retain, on a long-term basis, highly qualified non-employee directors. Under the policy, each director who is not an employee will be paid cash compensation from and after the completion of this offering, as set forth below:

	<u>Annual Retainer</u>
<b>Board of Directors:</b>	
Members	\$
Additional retainer for non-executive chair	\$
<b>Audit Committee:</b>	
Members (other than chair)	\$
Retainer for chair	\$
<b>Compensation Committee:</b>	
Members (other than chair)	\$
Retainer for chair	\$
<b>Nominating and Corporate Governance Committee:</b>	
Members (other than chair)	\$
Retainer for chair	\$

In addition, the non-employee director compensation policy will provide that, upon initial election to our board of directors, each non-employee director will be granted a \_\_\_\_\_ award (the “Initial Grant”). The Initial Grant will vest in \_\_\_\_\_, subject to continued service through the applicable vesting date. Furthermore, on the date of each annual meeting of stockholders following the completion of this offering, each non-employee director who continues as a non-employee director following such meeting will be granted an annual \_\_\_\_\_ award (the “Annual Grant”). The Annual Grant will vest \_\_\_\_\_.

We will reimburse all reasonable out-of-pocket expenses incurred by non-employee directors in attending meetings of the board of directors and committees thereof.

**FOIA Confidential Treatment Requested****CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS**

The following is a description of transactions or series of transactions since our incorporation in June 2020, to which we were or will be a party, in which:

- the amount involved in the transaction exceeds, or will exceed, the lesser of \$120,000 or one percent of the average of the Company's total assets for the last two completed fiscal years; and
- in which any of our executive officers, directors or holder of five percent or more of any class of our capital stock, including their immediate family members or affiliated entities, had or will have a direct or indirect material interest.

Compensation arrangements for our named executive officers and our directors are described elsewhere in this prospectus under "Executive Compensation" and "Director Compensation."

**Private Placement of Securities****Common Stock**

In June and July 2020, we entered into several Common Stock Purchase Agreements pursuant to which we agreed to issue and sell 4,850,000 shares of our common stock, some of which are subject to vesting schedules, at a price of \$0.0001 per share to certain investors. The following table summarizes purchases of our common stock by related persons:

<b>Participant</b>	<b>Affiliated Director(s) or Officer(s)</b>	<b>Shares of Common Stock</b>	<b>Total Purchase Price</b>
Ivana Magovčević-Liebisch, PhD, JD <sup>(1)</sup>	—	500,000	\$ 50.00
Atlas Venture Fund XII, L.P. <sup>(2)</sup>	Bruce Booth, D.Phil	4,000,000	\$ 399.99

(1) Dr. Magovcevic-Liebisch is the President and Chief Executive Officer of the Company and a member of our board of directors.

(2) Such entity is affiliated with Atlas Venture, which holds five percent or more of our capital stock. Dr. Booth is a partner at Atlas Venture and a member of our board of directors.

**Simple Agreements for Future Equity**

In July 2020, we entered into a simple agreement for future equity, or the Atlas SAFE, with Atlas Venture Fund XII, L.P. pursuant to which we received \$5 million in exchange for our agreement to issue Atlas Venture Fund XII, L.P. shares of our preferred stock upon the occurrence of subsequent financings of our preferred stock. Atlas Venture Fund XII, L.P. is affiliated with Atlas Venture, which holds five percent or more of our capital stock. Dr. Booth is a partner at Atlas Venture and a member of our board of directors.

**Series A Preferred Stock Financings****First Closing**

In September 2020, in connection with the initial closing of our Series A preferred stock financing, we sold an aggregate of 11,778,560 shares of our Series A preferred stock at a purchase price of \$2.547 per share for an aggregate purchase price of approximately \$30.0 million (including \$5.0 million of the Atlas SAFE, which was converted into shares of Series A preferred stock). Additionally, we issued 6,928,566 shares of Series A preferred stock pursuant to our agreements with Amgen Inc. See "Business—Exclusive License Agreement with Amgen Inc." Each share of our Series A preferred stock will automatically convert into one share of our common

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stock immediately prior to the completion of this offering. The following table summarizes purchases of our Series A preferred stock by related persons:

<u>Participant</u>	<u>Affiliated Director(s) or Officer(s)</u>	<u>Shares of Series A Preferred Stock</u>	<u>Total Purchase Price</u>
Northpond Ventures, LP <sup>(1)</sup>	Shaan Gandhi, MD, PhD, MBA	4,711,425	\$ 11,999,999.48
Atlas Venture Fund XII, L.P. <sup>(2)</sup>	Bruce Booth, D.Phil	6,674,517 <sup>(3)</sup>	\$ 11,999,996.93 <sup>(3)</sup>
Hatteras Venture Partners VI, LP <sup>(4)</sup>	Clay Bernardin Thorp	1,531,213	\$ 3,899,999.52
Amgen Inc. <sup>(5)</sup>	—	6,928,566	—

- (1) Such entity is affiliated with Northpond Ventures, which holds five percent or more of our capital stock. Dr. Gandhi is a director at Northpond Ventures and a member of our board of directors.
- (2) Such entity is affiliated with Atlas Venture, which holds five percent or more of our capital stock. Dr. Booth is a partner at Atlas Venture and a member of our board of directors.
- (3) At the time of the initial closing of our Series A preferred stock financing, the \$5.0 million Atlas SAFE converted into 1,963,093 Series A Preferred Stock.
- (4) Hatteras Venture Partners VI, LP is a holder of five percent or more of our capital stock. Mr. Thorp is a general partner at Hatteras Venture Partners and a member of our board of directors.
- (5) Amgen Inc. is a holder of five percent or more of our capital stock.

*Milestone Closing*

In May 2021, in connection with the milestone closing of our Series A preferred stock financing, we sold an aggregate of 7,852,373 shares of Series A preferred stock at a purchase price of \$2.54700 per share for an aggregate purchase price of approximately \$20.0 million. Additionally, we issued 1,963,093 shares of Series A preferred stock pursuant to our agreements with Amgen Inc. See “Business—Exclusive License Agreement with Amgen Inc.” Each share of our Series A preferred stock will automatically convert into one share of our common stock immediately prior to the completion of this offering. The following table summarizes purchases of our Series A preferred stock by related persons:

<u>Participant</u>	<u>Affiliated Director(s) or Officer(s)</u>	<u>Shares of Series A Preferred Stock</u>	<u>Total Purchase Price</u>
Northpond Ventures, LP <sup>(1)</sup>	Shaan Gandhi, MD, PhD, MBA	3,140,950	\$ 7,999,999.65
Atlas Venture Fund XII, L.P. <sup>(2)</sup>	Bruce Booth, D.Phil	3,140,950	\$ 7,999,999.65
Hatteras Venture Partners VI, LP <sup>(3)</sup>	Clay Bernardin Thorp	1,020,808	\$ 2,599,997.98
Amgen Inc. <sup>(4)</sup>	—	1,963,093	—

- (1) Such entity is affiliated with Northpond Ventures, which holds five percent or more of our capital stock. Dr. Gandhi is a director at Northpond Ventures and a member of our board of directors.
- (2) Such entity is affiliated with Atlas Venture, which holds five percent or more of our capital stock. Dr. Booth is a partner at Atlas Venture and a member of our board of directors.
- (3) Hatteras Venture Partners VI, LP is a holder of five percent or more of our capital stock. Mr. Thorp is a general partner at Hatteras Venture Partners and a member of our board of directors.
- (4) Amgen Inc. is a holder of five percent or more of our capital stock.

**Series B Preferred Stock Financing**

In August 2021, we sold an aggregate of 25,657,096 shares of our Series B preferred stock at a purchase price of \$3.50780 per share for an aggregate purchase price of approximately \$90.0 million. Each share of our Series B preferred stock will automatically convert into one share of our common stock immediately prior to the

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completion of this offering. The following table summarizes purchases of our Series B preferred stock by related persons:

<b>Participant</b>	<b>Affiliated Director(s) or Officer(s)</b>	<b>Shares of Series B Preferred Stock</b>	<b>Total Purchase Price</b>
Northpond Ventures II, LP <sup>(1)</sup>	Shaan Gandhi, MD, PhD, MBA	2,850,790	\$ 10,000,001.17
Atlas Venture Opportunity Fund I, L.P. <sup>(2)</sup>	Bruce Booth, D.Phil	2,850,789	\$ 9,999,997.66
Hatteras Venture Partners VI, LP <sup>(3)</sup>	Clay Bernardin Thorp	926,506	\$ 3,249,997.75
Vida Ventures III, LP <sup>(4)</sup>	Stefan Vitorovic, MS, MBA	21,310	\$ 74,751.22
Vida Ventures III-A, LP	Stefan Vitorovic, MS, MBA	9,243,756	\$ 32,425,247.30

- (1) Such entity is affiliated with Northpond Ventures, which holds five percent or more of our capital stock. Dr. Gandhi is a director at Northpond Ventures and a member of our board of directors.
- (2) Such entity is affiliated with Atlas Venture, which holds five percent or more of our capital stock. Dr. Booth is a partner at Atlas Venture and a member of our board of directors.
- (3) Hatteras Venture Partners VI, LP is a holder of five percent or more of our capital stock. Mr. Thorp is a general partner at Hatteras Venture Partners and a member of our board of directors.
- (4) Such entity is affiliated with Vida Ventures, which holds five percent or more of our capital stock. Mr. Vitorovic is a co-founder and managing director at Vida Ventures and a member of our board of directors.

**Agreements with Our Stockholders*****Amgen Agreements***

In July 2020, we entered into an exclusive license agreement with Amgen Inc., or Amgen, pursuant to which we have been granted an exclusive, royalty-bearing license to certain intellectual property rights owned or controlled by Amgen, to commercially develop, manufacture, use, distribute and sell therapeutic products containing compounds that bind to TREM2. Amgen is a holder of five percent or more of our capital stock. For more information, see the section entitled “Business—Exclusive License Agreement with Amgen Inc.”

***Atlas Lease Agreements***

In July and September 2020, we entered into use and occupancy agreements for office space with Atlas Venture Life Science Advisors, LLC, or Atlas, an affiliate of Atlas Venture, an owner of more than five percent of our outstanding capital stock. We early terminated these leases in November 2020.

Additionally, on February 1, April 12, and July 1, 2021, we entered into three use and occupancy agreements for office space with Atlas. In September 2021, we terminated these three agreements, effective on November 5, 2021 for the February 1 and April 12, 2021 leases and effective on October 1, 2021 for the July 1, 2021 lease. On April 1, 2021, we entered into a use and occupancy agreement for laboratory space with Atlas. This lease expires on April 1, 2022 with an option to continue thereafter on a month to month basis unless terminated by either party upon written notice.

The total rent payment paid to Atlas Venture Life Science Advisors, LLC for the year ended December 31, 2020 and in the six months ended June 30, 2021 was \$13 thousand and \$44 thousand, respectively.

***Agreements with Other Stockholders***

In connection with our preferred stock financings, we entered into an investors’ rights agreement, voting agreement and right of first refusal agreement, in each case, with the purchasers of our preferred stock and certain holders of our common stock.

Our amended and restated investors’ rights agreement (Investor Rights Agreement), provides certain holders of our preferred stock with a participation right to purchase their pro rata share of new securities that we may

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propose to sell and issue, subject to certain exceptions. Such participation right will terminate upon the closing of this offering. The Investor Rights Agreement further provides certain holders of our capital stock with the right to demand that we file a registration statement, subject to certain limitations, and to request that their shares be covered by a registration statement that we are otherwise filing. See “Description of Capital Stock—Registration Rights” appearing elsewhere in this prospectus, for additional information regarding such registration rights.

Our amended and restated voting agreement (Voting Agreement) provides for drag-along rights in respect of sales by certain holders of our capital stock. The Voting Agreement also contains provisions with respect to the elections of our board of directors and its composition. The rights under the Voting Agreement will terminate upon the closing of this offering.

Our amended and restated right of first refusal and co-sale agreement (Right of First Refusal and Co-Sale Agreement) provides for rights of first refusal and co-sale rights in respect of sales by certain holders of our capital stock. The rights under the Right of First Refusal and Co-Sale Agreement will terminate upon the closing of this offering.

### **Indemnification Agreements**

In connection with this offering, we intend to enter into new agreements to indemnify our directors and executive officers. These agreements will, among other things, require us to indemnify these individuals for certain expenses (including attorneys’ fees), judgments, fines and settlement amounts reasonably incurred by such person in any action or proceeding, including any action by or in our right, on account of any services undertaken by such person on behalf of our company or that person’s status as a member of our board of directors to the maximum extent allowed under Delaware law.

### **Policies for Approval of Related Party Transactions**

Our board of directors reviews and approves transactions with directors, officers and holders of 5% or more of our voting securities and their affiliates, each a related party. Prior to this offering, the material facts as to the related party’s relationship or interest in the transaction are disclosed to our board of directors prior to their consideration of such transaction, and the transaction is not considered approved by our board of directors unless a majority of the directors who are not interested in the transaction approve the transaction. Further, when stockholders are entitled to vote on a transaction with a related party, the material facts of the related party’s relationship or interest in the transaction are disclosed to the stockholders, who must approve the transaction in good faith.

In connection with this offering, we will adopt a written related party transactions policy that all such transactions must be approved by our audit committee. This policy will become effective on the date on which the registration statement of which this prospectus is part is declared effective by the SEC.

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**PRINCIPAL STOCKHOLDERS**

The following table sets forth certain information known to us regarding beneficial ownership of our capital stock as of August 31, 2021, and as adjusted to reflect the sale of common stock offered by us in this offering, for:

- each person or group of affiliated persons known by us to be the beneficial owner of more than 5% of our capital stock;
- each of our named executive officers;
- each of our directors; and
- all of our executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Under those rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power. Except as noted by footnote, and subject to community property laws where applicable, we believe, based on the information provided to us, that the persons and entities named in the table below have sole voting and investment power with respect to all common stock shown as beneficially owned by them.

The percentage of beneficial ownership prior to this offering in the table below is based on 58,969,271 shares of common stock (which includes 789,583 shares of restricted common stock) deemed to be outstanding as of August 31, 2021, assuming the conversion of all outstanding shares of our Series A and Series B convertible preferred stock immediately prior to the closing of this offering, and assuming an initial public offering price or \$ \_\_\_\_\_ per share, which is the midpoint of the offering range set forth on the cover page of this prospectus, and the percentage of beneficial ownership after this offering in the table below is based on \_\_\_\_\_ shares of common stock assumed to be outstanding after the closing of the offering. The information in the table below assumes no exercise of the underwriters' option to purchase additional shares.

Unless otherwise noted below, the address for each beneficial owner listed in the table below is c/o Vigil Neuroscience, Inc., 300 Technology Square, 8th Floor, Cambridge, MA 02139.

<b>Name and Address of Beneficial Owner:</b>	<b>Shares Beneficially Owned Prior to Offering</b>		<b>Shares Beneficially Owned After Offering</b>	
	<b>Number</b>	<b>Percentage</b>	<b>Number</b>	<b>Percentage</b>
Entities affiliated with Atlas Venture <sup>(1)</sup>	14,703,163	24.9%		
Entities affiliated with Northpond Ventures <sup>(2)</sup>	10,703,165	18.2%		
Entities affiliated with Vida Ventures <sup>(3)</sup>	9,265,066	15.7%		
Amgen Inc. <sup>(4)</sup>	8,891,659	15.1%		
Hatteras Venture Partners VI, LP <sup>(5)</sup>	3,478,527	5.9%		
<b>Named Executive Officers and Directors:</b>				
Ivana Magovčević-Liebisch, PhD, JD, <i>Chief Executive Officer and Director</i> <sup>(6)</sup>	946,332	1.6%		
Richard A. Fisher, PhD, <i>Chief Scientific Officer and Director</i> <sup>(7)</sup>	103,340	*		
Spyros Papapetropoulos, MD, PhD, <i>Chief Medical Officer</i> <sup>(8)</sup>	119,407	*		
Bruce Booth, D.Phil, <i>Chairman</i>	14,703,163	24.9%		
Cheryl Renee Blanchard, PhD, <i>Director</i> <sup>(9)</sup>	4,239	*		
Clay Bernardin Thorp, <i>Director</i>	—	—		
Gerhard Koenig, PhD, <i>Director</i> <sup>(10)</sup>	29,308	*		
Shaan Gandhi, MD, PhD, MBA, <i>Director</i>	—	—		
Stefan Vitorovic, MS, MBA, <i>Director</i>	—	—		
<b>All executive officers and directors as a group (11 persons)</b> <sup>(11)</sup>	<b>15,986,820</b>	<b>26.8%</b>		

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\* Less than one percent.

- (1) Consists of (i) 4,000,000 shares of common stock held by Atlas Venture Fund XII, L.P., or Atlas Fund XII, (ii) 7,852,374 shares of common stock issuable upon conversion of Series A Preferred Stock held by Atlas Fund XII, and (iii) 2,850,789 shares of common stock issuable upon conversion of Series B Preferred Stock held by Atlas Venture Opportunity Fund I, L.P., or AVAO I. Atlas Venture Associates XII, L.P., or AVA XII LP, is the general partner of Atlas Fund XII. Atlas Venture Associates XII, LLC, or AVA XII LLC, is the general partner of AVA XII LP. Bruce Booth is a member of AVA XII LLC. Each of AVA XII LP, AVA XII LLC and Dr. Booth may be deemed to beneficially own the shares held by Atlas Fund XII. Each of AVA XII LP, AVA XII LLC and Dr. Booth expressly disclaim beneficial ownership of the securities owned by Atlas Fund XII, except to the extent of its pecuniary interest therein, if any. Atlas Venture Associates Opportunity I, L.P., or AVAO LP, is the general partner of AVAO I. Atlas Venture Associates Opportunity I, LLC, or AVAO LLC, is the general partner of AVAO LP. Dr. Booth is a member of AVAO LLC. Each of AVAO LP, AVAO LLC and Dr. Booth may be deemed to beneficially own the shares held by AVAO I. Each of AVAO LP, AVAO LLC and Dr. Booth expressly disclaim beneficial ownership of the securities owned by AVAO I, except to the extent of its pecuniary interest therein, if any. The address for each of these entities and individuals is 300 Technology Square, 8<sup>th</sup> Floor, Cambridge, MA 02139.
- (2) Consists of (i) 7,852,375 shares of common stock issuable upon conversion of Series A Preferred Stock held by Northpond Ventures, LP and (ii) 2,850,790 shares of common stock issuable upon conversion of Series B Preferred Stock held by Northpond Ventures II, LP. The general partner of Northpond Ventures, LP is Northpond Ventures GP, LLC (“Northpond GP”). The general partner of Northpond Ventures II, LP is Northpond Ventures II GP, LLC (“Northpond II GP”). Michael P. Rubin is the managing member of Northpond GP and Northpond II GP. Each of Northpond GP and Michael Rubin may be deemed to beneficially own the shares held by Northpond Ventures, LP, and each of Northpond II GP and Michael Rubin may be deemed to beneficially own the shares held by Northpond II GP. The address for each of these entities is 7500 Old Georgetown Rd, Suite 850, Bethesda, MD 20814.
- (3) Consists of (i) 21,310 shares of common stock issuable upon conversion of Series B Preferred Stock held by Vida Ventures III-A, L.P. and (ii) 9,243,756 shares of common stock issuable upon conversion of Series B Preferred Stock held by Vida Ventures III, L.P. Vida Ventures III-A, L.P. and Vida Ventures III, L.P. are collectively referred to as the “Vida Funds.” Vida Ventures GP III, L.L.C. (“Vida GP”) is the general partner of each of the Vida Funds. Mr. Vitorovic, a member of our board of directors, is a managing member of Vida GP. Each of Vida GP and Mr. Vitorovic may be deemed to have voting and dispositive power with respect to the shares owned by the Vida Funds. Each of Vida GP and Mr. Vitorovic disclaims beneficial ownership of such shares, except to the extent of their respective pecuniary interests therein. The address for each of these entities and individuals is 40 Broad Street, Suite 201, Boston, MA 02109.
- (4) Consists of 8,891,659 shares of common stock issuable upon conversion of convertible Series A Preferred Stock held by Amgen Inc. issued in connection with a license agreement. The address of Amgen Inc. is One Amgen Center Drive, Thousand Oaks, CA 91320.
- (5) Consists of (i) 2,552,021 shares of common stock issuable upon conversion of Series A Preferred Stock and (ii) 926,506 shares of common stock issuable upon conversion of Series B Preferred Stock held by Hatteras Venture Partners VI, LP. Hatteras Venture Advisors VI, LLC is the general partner of Hatteras Venture Partners VI, LP and may be deemed to have voting and investment power over the shares of the Company. The address for each of these entities is 280 S. Mangum St., Suite 350, Durham, NC 27701.
- (6) Consists of (i) 500,000 shares of common stock held by Dr. Magovčević-Liebisch and (ii) 2,783,919 shares subject to options held by Dr. Magovčević-Liebisch, of which 446,332 are vested and exercisable within 60 days of August 31, 2021.
- (7) Consists of 690,991 shares subject to options held by Dr. Fisher, of which 103,340 are vested and exercisable within 60 days of August 31, 2021.
- (8) Consists of 752,565 shares subject to options held by Dr. Papapetropoulos, of which 119,407 are vested and exercisable within 60 days of August 31, 2021.

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- (9) Consists of 171,037 shares subject to options held by Dr. Blanchard, of which 4,239 are vested and exercisable within 60 days of August 31, 2021.
- (10) Consists of 171,037 shares subject to options held by Dr. Koenig, of which 29,308 are vested and exercisable within 60 days of August 31, 2021.
- (11) See notes (6) through (10) above; also includes options to purchase 1,148,003 shares of common stock held by Jennifer Ziolkowski, the Company's Chief Financial Officer, and Evan A. Thackaberry, the Company's SVP, Head of Early Development, of which 81,031 are exercisable within 60 days of August 31, 2021.



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**DESCRIPTION OF CAPITAL STOCK**

*The following descriptions are summaries of the material terms of our third amended and restated certificate of incorporation, which will be effective upon the closing of this offering and amended and restated bylaws, which will be effective upon the effectiveness of the registration statement of which this prospectus is a part. The descriptions of the common stock and preferred stock give effect to changes to our capital structure that will occur immediately prior to the completion of this offering. We refer in this section to our third amended and restated certificate of incorporation as our certificate of incorporation, and we refer to our amended and restated bylaws as our bylaws.*

**General**

Upon completion of this offering, our authorized capital stock will consist of \_\_\_\_\_ shares of common stock, par value \$0.0001 per share, and \_\_\_\_\_ shares of preferred stock, par value \$0.0001 per share, all of which shares of preferred stock will be undesignated.

As of August 31, 2021, 58,969,271 shares of our common stock were outstanding and held by 58 stockholders of record. This amount assumes the conversion of all outstanding shares of our preferred stock into common stock, which will occur immediately prior to the closing of this offering.

**Common Stock**

The holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders. The holders of our common stock do not have any cumulative voting rights. Holders of our common stock are entitled to receive ratably any dividends declared by our board of directors out of funds legally available for that purpose, subject to any preferential dividend rights of any outstanding preferred stock. Our common stock has no preemptive rights, conversion rights or other subscription rights or redemption or sinking fund provisions.

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock. The shares to be issued by us in this offering will be, when issued and paid for, validly issued, fully paid and non-assessable.

**Preferred Stock**

Immediately prior to the completion of this offering, all outstanding shares of our preferred stock will be converted into shares of our common stock. Upon the consummation of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to \_\_\_\_\_ shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our Company or other corporate action. Immediately after consummation of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

**Options**

As of August 31, 2021, we had outstanding options under our 2020 Plan to purchase an aggregate of 7,720,416 shares of our common stock, with a weighted-average exercise price of \$1.34 per share.

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**Registration Rights**

Upon the completion of this offering, certain holders of our common stock, including those issuable upon the conversion of preferred stock, will be entitled to rights with respect to the registration of these securities under the Securities Act. These rights are provided under the terms of an investors' rights agreement between us and the holders of our preferred stock. The investors' rights agreement includes demand registration rights, short-form registration rights and piggyback registration rights. All fees, costs and expenses of underwritten registrations under this agreement will be borne by us and all selling expenses, including underwriting discounts and selling commissions, will be borne by the holders of the shares being registered.

***Demand Registration Rights***

Beginning six months after the completion of this offering, certain holders of our common stock, including those issuable upon the conversion of shares of our preferred stock upon closing of this offering, will be entitled to demand registration rights. Under the terms of the investors' rights agreement, we will be required, upon the written request of a majority of holders of the registerable securities then outstanding that would result in an aggregate offering price of at least \$10 million, to file a registration statement on Form S-1 with respect to at least 40% of the registrable securities then outstanding and to use commercially reasonable efforts to effect the registration of all or a portion of these shares for public resale.

***Short-form Registration Rights***

Upon the completion of this offering, certain holders of our common stock, including those issuable upon the conversion of shares of our preferred stock upon closing of this offering, are also entitled to short-form registration rights. Pursuant to the investors' rights agreement, if we are eligible to file a registration statement on Form S-3, upon the written request of at least 20% in interest of these holders to sell registrable securities at an aggregate price of at least \$3 million, we will be required to use commercially reasonable efforts to effect a registration of such shares. We are required to effect only two registrations in any twelve month period pursuant to this provision of the investor rights agreement.

***Piggyback Registration Rights***

Upon the completion of this offering, certain holders of our common stock, including those issuable upon the conversion of shares of our preferred stock upon closing of this offering, are entitled to piggyback registration rights. If we register any of our securities either for our own account or for the account of other security holders, the holders of these shares are entitled to include their shares in the registration. Subject to certain exceptions contained in the investors' rights agreement, we and the underwriters may limit the number of shares included in the underwritten offering to the number of shares which we and the underwriters determine in our sole discretion will not jeopardize the success of the offering.

***Indemnification***

Our investors' rights agreement contains customary cross-indemnification provisions, under which we are obligated to indemnify holders of registrable securities in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions attributable to them.

***Expiration of Registration Rights***

The demand registration rights and short-form registration rights granted under the investor rights agreement will terminate on the fifth anniversary of the completion of this offering.

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### **Anti-takeover Effects of Our Certificate of Incorporation and Bylaws and Delaware Law**

Our certificate of incorporation and bylaws include a number of provisions that may have the effect of delaying, deferring or preventing another party from acquiring control of us and encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

#### ***Board Composition and Filling Vacancies***

Our certificate of incorporation will provide for the division of our board of directors into three classes serving staggered three-year terms, with one class being elected each year. Our certificate of incorporation also will provide that directors may be removed only for cause and then only by the affirmative vote of the holders of two-thirds or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum. The classification of directors, together with the limitations on removal of directors and treatment of vacancies, has the effect of making it more difficult for stockholders to change the composition of our board of directors.

#### ***No Written Consent of Stockholders***

Our certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting. This limit may lengthen the amount of time required to take stockholder actions and would prevent the amendment of our bylaws or removal of directors by our stockholders without holding a meeting of stockholders.

#### ***Meetings of Stockholders***

Our certificate of incorporation and bylaws provide that only a majority of the members of our board of directors then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

#### ***Advance Notice Requirements***

Our bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. Our bylaws specify the requirements as to form and content of all stockholders' notices. These requirements may preclude stockholders from bringing matters before the stockholders at an annual or special meeting.

#### ***Amendment to Certificate of Incorporation and Bylaws***

Any amendment of our certificate of incorporation must first be approved by a majority of our board of directors, and if required by law or our certificate of incorporation, must thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action,

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board composition, and limitation of liability must be approved by not less than two-thirds of the outstanding shares entitled to vote on the amendment, and not less than two-thirds of the outstanding shares of each class entitled to vote thereon as a class. Our bylaws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the bylaws; and may also be amended by the affirmative vote of a majority of the outstanding shares entitled to vote on the amendment, voting together as a single class, except that the amendment of the provisions relating to notice of stockholder business and nominations and special meetings must be approved by not less than two-thirds of the outstanding shares entitled to vote on the amendment, and not less than two-thirds of the outstanding shares of each class entitled to vote thereon as a class, or, if our board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

### *Undesignated Preferred Stock*

Our certificate of incorporation provides for \_\_\_\_\_ authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

### **Choice of Forum**

Our bylaws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for any state law claims for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, and employees to us or our stockholders, (3) any action asserting a claim arising pursuant to the Delaware General Corporation Law, our certificate of incorporation or our bylaws (including the interpretation, validity or enforceability thereof), or (4) any action asserting a claim that is governed by the internal affairs doctrine; provided, however, that this provision shall not apply to any causes of action arising under the Securities Act or Exchange Act. In addition, our bylaws provide that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States shall be the sole and exclusive forum for resolving any complaint asserting a cause or causes of action arising under the Securities Act, including all causes of action asserted against any defendants to such complaint. For the avoidance of doubt, this provision is intended to benefit and may be enforced by us, our officers and directors, the underwriters to any offering giving rise to such complaint, and any other professional entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying the offering. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions, and there can be no assurance that such provisions will be enforced by a court in those other jurisdictions. Any person or entity purchasing or otherwise acquiring any interest in our securities shall be deemed to have notice of and consented to these forum provisions. These forum provisions may impose additional costs on stockholders, may limit our stockholders' ability to bring a claim in a forum they find favorable, and the designated courts may reach different judgments or results than other courts. Please also see "Risk Factors—Risks Related to This Offering and Ownership of Our Common Stock—Our bylaws that will become effective upon the effectiveness of this registration statement designate certain courts as the sole and

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exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.”

#### Section 203 of the Delaware General Corporation Law

Upon completion of this offering, we will be subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or
- at or after the time the stockholder became interested, the business combination was approved by our board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, lease, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges, or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

#### Nasdaq Global Market Listing

We have applied to list our common stock on the Nasdaq Global Market under the trading symbol “VIGL.”

#### Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be .

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**SHARES ELIGIBLE FOR FUTURE SALE**

Prior to this offering, there has been no public market for our shares. Future sales of our common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

Based on the number of shares outstanding as of June 30, 2021, upon the completion of this offering, \_\_\_\_\_ shares of our common stock will be outstanding, assuming no exercise of the underwriters' option to purchase additional shares and no exercise of outstanding options. Of the outstanding shares, all of the shares sold in this offering will be freely tradable, except that any shares held by our affiliates, as that term is defined in Rule 144 under the Securities Act, may only be sold in compliance with the limitations described below.

**Rule 144**

In general, a person who has beneficially owned restricted stock for at least six months would be entitled to sell their securities provided that (i) such person is not deemed to have been one of our affiliates at the time of, or at any time during the 90 days preceding, a sale and (ii) we are subject to the Securities Exchange Act of 1934, as amended, or the Exchange Act, periodic reporting requirements for at least 90 days before the sale. Persons who have beneficially owned restricted shares for at least six months but who are our affiliates at the time of, or any time during the 90 days preceding, a sale, would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of securities that does not exceed the greater of either of the following:

- 1% of the number of shares then outstanding, which will equal \_\_\_\_\_ shares immediately after this offering assuming no exercise of the underwriters' option to purchase additional shares, based on the number of shares outstanding as of June 30, 2021; or
- the average weekly trading volume of our common stock on the Nasdaq Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale;

provided, in each case, that we are subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale. Such sales both by affiliates and by non-affiliates must also comply with the manner of sale, current public information and notice provisions of Rule 144.

**Rule 701**

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers, or directors who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling their shares. However, substantially all Rule 701 shares are subject to lock-up agreements as described below and under "Underwriting" included elsewhere in this prospectus and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

**Lock-up Agreements**

We, all of our directors and executive officers, and the holders of substantially all of our capital stock and securities convertible into or exchangeable for our capital stock have entered into lock-up agreements with the underwriters and/or are subject to market standoff agreements or other agreements with us, which prevents them

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from selling any of our common stock or any securities convertible into or exercisable or exchangeable for common stock for a period of not less than 180 days from the date of this prospectus without the prior written consent of the representatives, subject to certain exceptions. See “Underwriting” appearing elsewhere in this prospectus for more information.

**Registration Rights**

Upon completion of this offering, certain holders of our securities will be entitled to various rights with respect to registration of their shares under the Securities Act. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration. See “Description of Capital Stock—Registration Rights” appearing elsewhere in this prospectus for more information.

**Equity Incentive Plans**

We intend to file one or more registration statements on Form S-8 under the Securities Act to register our shares issued or reserved for issuance under our equity incentive plans. The first such registration statement is expected to be filed soon after the date of this prospectus and will automatically become effective upon filing with the SEC. Accordingly, shares registered under such registration statement will be available for sale in the open market, unless such shares are subject to vesting restrictions with us or the lock-up restrictions described above.

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**CERTAIN MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF COMMON STOCK**

The following discussion is a summary of certain material U.S. federal income tax considerations applicable to non-U.S. holders (as defined below) with respect to their ownership and disposition of shares of our common stock issued pursuant to this offering. For purposes of this discussion, a non-U.S. holder means a beneficial owner of our common stock that is for U.S. federal income tax purposes:

- a non-resident alien individual;
- a foreign corporation or other foreign organization taxable as a corporation;
- an estate the income of which is not subject to U.S. federal income tax on a net income basis; or
- a trust the income of which is not subject to U.S. federal income tax on a net income basis and that (1) is not subject to the primary supervision of a court within the United States or over which no U.S. persons have authority to control all substantial decisions and (2) has not made an election to be treated as a U.S. person.

This discussion does not address the tax treatment of partnerships or other entities that are pass-through entities for U.S. federal income tax purposes or persons that hold their common stock through partnerships or other pass-through entities. A partner in a partnership or other pass-through entity that will hold our common stock should consult his, her or its tax advisor regarding the tax consequences of acquiring, holding and disposing of our common stock through a partnership or other pass-through entity, as applicable.

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended, which we refer to as the Code, existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings and judicial decisions, all as in effect as of the date of this prospectus and, all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any such change or differing interpretation could alter the tax consequences to non-U.S. holders described in this prospectus. We have not sought any ruling from the Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will not challenge one or more of the tax consequences described herein. We assume in this discussion that a non-U.S. holder holds shares of our common stock as a capital asset within the meaning of Section 1221 of the Code, generally property held for investment.

This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances nor does it address any aspects of U.S. state, local or non-U.S. taxes, the alternative minimum tax, the Medicare tax on net investment income, the rules regarding qualified small business stock within the meaning of Section 1202 of the Code or any U.S. federal tax other than the income tax (including, for example, the estate tax). This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as:

- insurance companies;
- tax-exempt or governmental organizations;
- financial institutions;
- brokers or dealers in securities;
- regulated investment companies and real estate investment trusts;
- pension plans;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;



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- “qualified foreign pension funds,” or entities wholly owned by a “qualified foreign pension fund”;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes;
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- persons who have elected to mark securities to market;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to the common stock being taken into account in an applicable financial statement under Section 451(b) of the Code;
- persons that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment;
- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- investors in pass-through entities (or entities that are treated as disregarded entities for U.S. federal income tax purposes); and
- U.S. expatriates.

This discussion is for general information only and is not tax advice. Accordingly, all prospective non-U.S. holders of our common stock should consult their own tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock.

### Distributions on Our Common Stock

Distributions, if any, on our common stock generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder’s investment, up to such holder’s tax basis in the common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in “Gain on Sale or Other Taxable Disposition of Our Common Stock.” Any such distributions will also be subject to the discussions below under the sections entitled “Backup Withholding and Information Reporting” and “Withholding and Information Reporting Requirements—FATCA.”

Subject to the discussion in the following two paragraphs in this section, dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder’s country of residence. If we are unable to determine, at a time reasonably close to the date of payment of a distribution on our common stock, what portion, if any, of the distribution will constitute a dividend, then we may withhold U.S. federal income tax on the basis of assuming that the full amount of the distribution will be a dividend. If we or another withholding agent apply over-withholding, a non-U.S. holder may be entitled to a refund or credit of any excess tax withheld by timely filing an appropriate claim with the IRS.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally taxed at the same graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code). However, such effectively connected dividends will be exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements. To obtain this exemption, a non-U.S. holder must generally provide the applicable withholding agent with a properly executed IRS Form W-8ECI (or other applicable or successor form) properly certifying eligibility for exemption. Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional “branch profits tax” at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder’s country of residence.

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A non-U.S. holder of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E (or other applicable or successor form) to the applicable withholding agent and satisfy applicable certification and other requirements. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS. Any documentation provided to an applicable withholding agent may need to be updated in certain circumstances. The certification requirements described above also may require a non-U.S. holder to provide its U.S. taxpayer identification number.

### Gain on Sale or Other Taxable Disposition of Our Common Stock

Subject to the discussions below under "Backup Withholding and Information Reporting" and "Withholding and Information Reporting Requirements—FATCA," a non-U.S. holder generally will not be subject to any U.S. federal income tax on any gain realized upon such holder's sale or other taxable disposition of shares of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a U.S. trade or business and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed-base maintained by such non-U.S. holder in the United States, in which case the non-U.S. holder generally will be taxed on a net income basis at the graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code) and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in "Distributions on Our Common Stock" also may apply;
- the non-U.S. holder is a nonresident alien individual who is present in the United States for a period aggregating 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence) on the net gain derived from the disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder, if any (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses; or
- we are, or have been, at any time during the five-year period preceding such sale or other taxable disposition (or the non-U.S. holder's holding period, if shorter) a "U.S. real property holding corporation," unless our common stock is regularly traded on an established securities market, within the meaning of the relevant provisions of the Code, and the non-U.S. holder holds no more than 5% of our outstanding common stock, directly or indirectly, actually or constructively, during the shorter of the 5-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. If we are determined to be a U.S. real property holding corporation and the foregoing exception does not apply, then the non-U.S. holder generally will be taxed on its net gain derived from the disposition at the graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code), except that the branch profits tax generally will not apply. If we are a U.S. real property holding corporation and our common stock is not regularly traded on an established securities market, a non-U.S. holder's proceeds received on the disposition of shares will also generally be subject to withholding at a rate of 15%. Generally, a corporation is a U.S. real property holding corporation only if the fair market value of its U.S. real property interests (as defined in the Code) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rules described above.

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### Backup Withholding and Information Reporting

We (or the applicable paying agent) must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions on our common stock paid to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. holders may have to comply with specific certification procedures to establish that the holder is not a United States person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. Dividends paid to non-U.S. holders subject to withholding of U.S. federal income tax, as described above in “Distributions on Our Common Stock,” generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them. Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder’s U.S. federal income tax liability, if any, provided that an appropriate claim is filed with the IRS in a timely manner.

### Withholding and Information Reporting Requirements—FATCA

The Foreign Account Tax Compliance Act (FATCA) generally imposes a U.S. federal withholding tax at a rate of 30% on certain types of payments made to a foreign entity unless (i) if the foreign entity is a “foreign financial institution,” such foreign entity undertakes certain due diligence, reporting, withholding, and certification obligations, (ii) if the foreign entity is not a “foreign financial institution,” such foreign entity identifies certain of its U.S. investors, if any, or (iii) the foreign entity is otherwise exempt under FATCA. Under applicable U.S. Treasury regulations, withholding under FATCA currently applies to payments of dividends on our common stock. Such withholding may also apply to gross proceeds from the sale or disposition of our common stock, although under proposed U.S. Treasury Regulations, no withholding would apply to such gross proceeds. The preamble to the proposed regulations specifies that taxpayers (including withholding agents) are permitted to rely on the proposed regulations pending finalization. Under certain circumstances, a non-U.S. holder may be eligible for refunds or credits of this withholding tax. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Non-U.S. holders should consult their tax advisors regarding the possible implications of this legislation on their investment in our common stock and the entities through which they hold our common stock, including, without limitation, the process and deadlines for meeting the applicable requirements to prevent the imposition of the 30% withholding tax under FATCA.

**The preceding discussion of U.S. federal income tax considerations is for general information only. It is not tax advice. Each prospective investor should consult its tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed change in applicable laws.**

**FOIA Confidential Treatment Requested****UNDERWRITING**

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. LLC and Jefferies LLC are acting as representatives, have severally agreed to purchase, and we have agreed to sell to them, severally, the number of shares indicated below:

<u>Name</u>	<u>Number of Shares</u>
Morgan Stanley & Co. LLC	
Jefferies LLC	
Stifel, Nicolaus & Company, Incorporated	
Guggenheim Securities, LLC	
Total:	

The underwriters and the representatives are collectively referred to as the “underwriters” and the “representatives,” respectively. The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters’ over-allotment option described below.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the offering price listed on the cover page of this prospectus and part to certain dealers at a price that represents a concession not in excess of \$ \_\_\_\_\_ per share under the public offering price. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representatives.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to \_\_\_\_\_ additional shares of common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the shares of common stock offered by this prospectus. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter’s name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

The following table shows the per share and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters’ option to purchase up to an additional \_\_\_\_\_ shares of common stock.

	<u>Per Share</u>	<u>Total</u>	
		<u>No Exercise</u>	<u>Full Exercise</u>
Public offering price	\$	\$	\$
Underwriting discounts and commissions	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately \$ \_\_\_\_\_. We have agreed to reimburse the underwriters for expense relating to clearance of this offering with the Financial Industry Regulatory Authority up to \$ \_\_\_\_\_.

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The underwriters have informed us that they do not intend sales to discretionary accounts to exceed 5% of the total number of shares of common stock offered by them.

We intend to apply to have our common stock listed on the NASDAQ Global Market under the trading symbol “VIGL”.

We and all directors and officers, and substantially all of the holders of all of our outstanding stock and stock options, have agreed that, without the prior written consent of the representatives on behalf of the underwriters, we and they will not, and will not publicly disclose an intention to, during the period ending 180 days after the date of this prospectus (the “restricted period”):

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock;
- file any registration statement with the SEC relating to the offering of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock; or
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock.

whether any such transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise. In addition, we and each such person agrees that, without the prior written consent of the representatives on behalf of the underwriters, we or such other person will not, during the restricted period, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

The restrictions described in the immediately preceding paragraph do not apply to:

- (a) the sale of shares to the underwriters; or
- (b) the issuance by the Company of shares of common stock upon the exercise of an option or a warrant or the conversion of a security outstanding on the date of this prospectus of which the underwriters have been advised in writing; or
- (c) transactions by any person other than us relating to shares of common stock or other securities acquired (i) from the underwriters in this initial public offering or (ii) in open market transactions after the completion of the offering of the shares; provided that no filing by the party subject to the lock-up under Section 16(a) of the Exchange Act, or any other public announcement reporting a reduction in beneficial ownership of common stock below the number of shares of common stock or other securities that the undersigned owns immediately prior to the public offering, is required or voluntarily made during the restricted period in connection with subsequent sales of the common stock or other securities acquired in the public offering or such open market transactions;
- (d) transfers of shares of common stock or any security convertible into or exchangeable for common stock (i) as a bona fide gift or to a charitable organization or educational institution in a transfer not involving a disposition for value or (ii) if the party subject to the lock-up restrictions is a corporation, partnership or other business entity, as part of a disposition, transfer or distribution without consideration to limited partners, members, affiliates or stockholders of such entity, or to the estates of any of the foregoing;
- (e) transfers or dispositions of common stock or any security convertible into common stock to any immediate family member of the party subject to the lock-up restrictions or any trust for the direct or indirect benefit of such person or an immediate family member of such person, or if the party subject to the lock-up restrictions is a trust, to a grantor, trustee or beneficiary of the trust (including such beneficiary’s estate) of the party subject to the lock-up restrictions, in each case set forth in this clause (e) in a transaction not involving a disposition for value;

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- (f) transfers or dispositions of common stock or any security convertible into or exercisable or exchangeable for common stock (i) by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the party subject to the lock-up restrictions upon the death of such person or (ii) by operation of law pursuant to orders of a court or regulatory agency, in connection with a negotiated divorce settlement or pursuant to a qualified domestic relations order;
- (g) if the party subject to the lock-up restrictions is an entity, transfers, dispositions or distributions of shares of common stock or any security convertible into common stock (i) to another corporation, partnership, limited liability company, trust or other business entity that is an affiliate (within the meaning set forth in Rule 405 under the Securities Act of 1933, as amended, and including the subsidiaries of such entity) of the party subject to the lock-up restrictions, (ii) to any investment fund or other entity controlling, controlled by, managing or managed by or under common control with the party subject to the lock-up restrictions or affiliates thereof (including, for the avoidance of doubt, where the party subject to the lock-up restrictions is a partnership, to its general partner or successor partnership or fund, or any other funds managed by such partnership) or (iii) to its stockholders, limited partners, general partners, limited liability company members or other equityholders or to the estate of any such stockholders, limited partners, general partners, limited liability company members or equityholders;
- (h) transfers or dispositions of common stock or any security convertible into or exercisable or exchangeable for common stock to the Company (i) pursuant to any contractual arrangement in effect on the date of the lock-up agreement and described in this prospectus or (ii) in connection with the termination of the employment with or service to the Company of the party subject to the lock-up restrictions; provided that such transfers or dispositions are not required to be reported with the SEC on Form 4 in accordance with Section 16 under the Exchange Act and no other public announcement shall be voluntarily made during the restricted period in connection with any such transfers or dispositions (other than (1) Schedule 13 filings filed with the SEC, and (2) any Form 4 or Form 5 required to be filed under the Exchange Act if the party subject to the lock-up restrictions is subject to Section 16 reporting with respect to the Company under the Exchange Act and indicating by footnote disclosure or otherwise the nature of the transfer or disposition);
- (i) transfers or dispositions of common stock or other securities to the Company in connection with the conversion of any convertible security into, or the exercise of any option or warrant for, common stock (including by way of “net” or “cashless” exercise solely to cover withholding tax obligations in connection with such exercise and any transfer to the Company for the payment of taxes as a result of such exercise) in each case pursuant to any equity incentive plan of the Company described in this prospectus and to the extent permitted by the instruments representing such options outstanding as of the date of this prospectus; provided that (i) any such common stock received by the party subject to the lock-up restrictions shall be subject to the terms of this agreement and (ii) no filing under Section 16 of the Exchange Act, reporting a reduction in beneficial ownership of common stock, or other public announcement shall be required or shall be voluntarily made during the restricted period (other than a filing on a Form 4 that reports such disposition under the transaction code “F” and indicates by footnote disclosure or otherwise the nature of the transfer or disposition);
- (j) (i) transfers of common stock (or any securities convertible into or exercisable or exchangeable for common stock) pursuant to a bona fide third-party tender offer for shares of the Company’s capital stock made to all holders of the Company’s securities, merger, consolidation or other similar transaction approved by the Company’s board of directors the result of which is that any person (as defined in Section 13(d)(3) of the Exchange Act), or group of persons, other than the Company, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of more than 50% of the total voting power of the voting stock of the Company and (ii) entry into any lock-up, voting or similar agreement pursuant to which the party subject to the lock-up restrictions may agree to transfer, sell, tender or otherwise dispose of common stock or such other securities in connection with a

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transaction described in (i) above; provided that in the event that such change of control transaction is not completed, the common stock (or any security convertible into or exercisable or exchangeable for common stock) owned by the party subject to the lock-up restrictions shall remain subject to the restrictions contained in this agreement;

- (k) facilitating the establishment of a trading plan on behalf of a shareholder, officer or director of the Company pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock, *provided* that (i) such plan does not provide for the transfer of common stock during the restricted period and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required of or voluntarily made by or on behalf of the party subject to the lock-up restrictions or the Company regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of common stock may be made under such plan during the restricted period;
- (l) pursuant to an order of a court or regulatory agency or to comply with any regulations related to the ownership by the party subject to the lock-up restrictions of shares of common stock or any security convertible into or exercisable or exchangeable for common stock, provided that in the case of any transfer pursuant to this subsection (l), any filing under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of shares of common stock shall state that such transfer is pursuant to an order of a court or regulatory agency or to comply with any regulations related to the ownership of common stock unless such a statement would be prohibited by any applicable law, regulation or order of a court or regulatory authority; or
- (m) the conversion of the outstanding shares of preferred stock or warrants to acquire shares of preferred stock of the Company described in this prospectus into shares of common stock of the Company; provided that such shares of common stock remain subject to the terms of this agreement;

provided that in the case of any transfer or distribution pursuant to clause (d), (e), (f) and (g), (k) each transferee, donee or distributee shall sign and deliver a lock up agreement substantially in the form of this agreement and (ii) no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of common stock, or any other public announcement, shall be required or shall be voluntarily made during the restricted period (other than, (1) Schedule 13 filings filed with the SEC, and (2) in the case of a transfer or other disposition pursuant to clause (f) above, any Form 4 or Form 5 required to be filed under the Exchange Act if the party subject to the lock-up restrictions is subject to Section 16 reporting with respect to the Company under the Exchange Act, and any such filing will indicate by footnote disclosure or otherwise the nature of the transfer or disposition).

The representatives, in their sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time.

In order to facilitate the offering of the common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. Specifically, the underwriters may sell more shares than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares available for purchase by the underwriters under their over-allotment option. The underwriters can close out a covered short sale by exercising their over-allotment option or purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under their over-allotment option. The underwriters may also sell shares in excess of their over-allotment option, creating a naked short position. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating this offering, the underwriters may bid for, and purchase, shares of common stock in the open market to stabilize the price of the common stock. These activities may raise or maintain the market price of the common

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stock above independent market levels or prevent or retard a decline in the market price of the common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

A prospectus in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. The representatives may agree to allocate a number of shares of common stock to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for us or our affiliates, for which they received or will receive customary fees and expenses.

In addition, in the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve our securities and instruments. The underwriters and their respective affiliates may also make investment recommendations or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long or short positions in such securities and instruments.

### Pricing of the Offering

Prior to this offering, there has been no public market for our common stock. The initial public offering price was determined by negotiations between us and the representatives. Among the factors considered in determining the initial public offering price were our future prospects and those of our industry in general, our sales, earnings and certain other financial and operating information in recent periods, and the price-earnings ratios, price-sales ratios, market prices of securities, and certain financial and operating information of companies engaged in activities similar to ours.

### Selling Restrictions

#### *Australia*

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission, or the ASIC, in relation to this offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001, or the Corporations Act, and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the securities may only be made to persons, or Exempt Investors, who are “sophisticated investors” (within the meaning of section 708(8) of the Corporations Act), “professional investors” (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more



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exemptions contained in Section 708 of the Corporations Act so that it is lawful to offer the securities without disclosure to investors under Chapter 6D of the Corporations Act.

The securities applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under Section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring the securities must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

### ***Canada***

The securities may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts, or NI 33-105, the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

### ***Dubai International Financial Centre***

This prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority, or the DFSA. This prospectus is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth herein and has no responsibility for the prospectus. The securities may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this prospectus you should consult an authorized financial advisor.

### ***European Economic Area***

In relation to each Member State of the European Economic Area (each, a "Relevant State"), no securities have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the securities which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent

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authority in that Relevant State, all in accordance with the Prospectus Regulation, except that offers of securities may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

- (a) to any legal entity which is a qualified investor as defined under the Prospectus Regulation;
- (b) to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the representatives; or
- (c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require us or any of our representatives to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an “offer to the public” in relation to any shares in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase any shares, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129 (as amended).

#### *Hong Kong*

The securities have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance or (b) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to the securities has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

#### *Singapore*

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, the securities were not offered or sold or caused to be made the subject of an invitation for subscription or purchase and will not be offered or sold or caused to be made the subject of an invitation for subscription or purchase, and this prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the securities, has not been circulated or distributed, nor will it be circulated or distributed, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time, or the SFA) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor;

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securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the securities pursuant to an offer made under Section 275 of the SFA except:

- (a) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i) (B) of the SFA;
- (b) where no consideration is or will be given for the transfer;
- (c) where the transfer is by operation of law; or
- (d) as specified in Section 276(7) of the SFA.

### **Switzerland**

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or the SIX, or on any other stock exchange or regulated trading facility in Switzerland. This prospectus has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus nor any other offering or marketing material relating to the securities or this offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus nor any other offering or marketing material relating to us, this offering or the securities has been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus will not be filed with, and this offering of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA (FINMA), and this offering of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or the CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of the securities.

### **United Arab Emirates**

The securities have not been, and are not being, publicly offered, sold, promoted or advertised in the United Arab Emirates (including the Dubai International Financial Centre) other than in compliance with the laws of the United Arab Emirates (and the Dubai International Financial Centre) governing the issue, offering and sale of securities. Further, this prospectus does not constitute a public offer of securities in the United Arab Emirates (including the Dubai International Financial Centre) and is not intended to be a public offer. This prospectus has not been approved by or filed with the Central Bank of the United Arab Emirates, the Securities and Commodities Authority or the DFSA.

### **United Kingdom**

In relation to the United Kingdom, no shares have been offered or will be offered pursuant to this offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the shares that either (i) has been approved by the Financial Conduct Authority, or (ii) is to be treated as if it had been approved by the Financial Conduct Authority in accordance with the transitional provision in Regulation 74 of the Prospectus (Amendment etc.) (EU Exit) Regulations 2019, except that offers of shares may be made to the public in the United Kingdom at any time under the following exemptions under the UK Prospectus Regulation:

- (a) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;
- (b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of representatives for any such offer; or

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- (c) in any other circumstances falling within Section 86 of the Financial Services and Markets Act 2000, or the FSMA, provided that no such offer of the shares shall require the Issuer or any representative to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation.

For the purposes of this provision, the expression an “offer to the public” in relation to the shares in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares and the expression “UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

In addition, this prospectus is only being distributed to, and is only directed at, and any investment or investment activity to which this prospectus relates is available only to, and will be engaged in only with, persons who are outside the United Kingdom or persons in the United Kingdom (i) having professional experience in matters relating to investments who fall within the definition of “investment professionals” in Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, or the Order; or (ii) who are high net worth entities falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”). Persons who are not relevant persons should not take any action on the basis of this prospectus and should not act or rely on it.

### **LEGAL MATTERS**

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts. Certain legal matters related to this offering will be passed upon for the underwriters by Ropes & Gray LLP, Boston, Massachusetts.

### **EXPERTS**

The financial statements as of December 31, 2020 and for the period from June 22, 2020 (inception) to December 31, 2020 included in this prospectus have been so included in reliance on the report (which contains an explanatory paragraph relating to the Company’s ability to continue as a going concern as described in Note 1 to the consolidated financial statements) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

### **WHERE YOU CAN FIND MORE INFORMATION**

We have filed with the SEC a registration statement on Form S-1 (File Number 333- ) under the Securities Act with respect to the common stock we are offering by this prospectus. This prospectus does not contain all of the information included in the registration statement. For further information pertaining to us and our common stock, you should refer to the registration statement and to its exhibits. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreement or other document.

Upon the completion of the offering, we will be subject to the informational requirements of the Exchange Act and will file annual, quarterly and current reports, proxy statements and other information with the SEC. You can read our SEC filings, including the registration statement, at the SEC’s website at [www.sec.gov](http://www.sec.gov). We also maintain a website at [www.vigilneuro.com](http://www.vigilneuro.com). Upon completion of the offering, you may access, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendment to those reported filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC.

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VIGIL NEUROSCIENCE INC.  
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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Stockholders of Vigil Neuroscience, Inc.

***Opinion on the Financial Statements***

We have audited the accompanying consolidated balance sheet of Vigil Neuroscience, Inc. and its subsidiary (the “Company”) as of December 31, 2020, and the related consolidated statements of operations and comprehensive loss, of convertible preferred stock and stockholders’ deficit, and of cash flows for the period from June 22, 2020 (Inception) to December 31, 2020, including the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020, and the results of its operations and its cash flows for the period from June 22, 2020 (Inception) to December 31, 2020 in conformity with accounting principles generally accepted in the United States of America.

***Substantial Doubt about the Company’s Ability to Continue as a Going Concern***

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has incurred losses and negative cash flows from operations since inception, expects continuing operating losses for the foreseeable future and needs to raise additional capital to finance its future operations that raise substantial doubt about its ability to continue as a going concern. Management’s plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

***Basis for Opinion***

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of these consolidated financial statements in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP  
Boston, Massachusetts  
October 8, 2021

We have served as the Company’s auditor since 2021.

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VIGIL NEUROSCIENCE, INC.  
**CONSOLIDATED BALANCE SHEETS**  
(In thousands, except share and per share amounts)

	December 31, 2020	June 30, 2021 (Unaudited)
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 24,151	\$ 33,059
Prepaid expenses and other current assets <sup>(1)</sup>	1,145	479
Total current assets	25,296	33,538
Property and equipment, net	—	69
Operating lease right-of-use assets	—	464
Financing lease right-of-use assets	—	102
Other assets	—	37
Total assets	<u>\$ 25,296</u>	<u>\$ 34,210</u>
<b>Liabilities, Convertible Preferred Stock and Stockholders' Deficit</b>		
Current liabilities:		
Accounts payable <sup>(2)</sup>	\$ 1,107	\$ 4,273
Accrued expenses and other current liabilities <sup>(2)</sup>	888	4,154
Operating lease liabilities	—	307
Financing lease liabilities	—	39
Total current liabilities	1,995	8,773
Related party antidilution obligation	4,247	—
Operating lease liabilities, net of current portion	—	139
Finance lease liabilities, net of current portion	—	45
Series A preferred stock tranche obligation	303	—
Total liabilities	<u>6,545</u>	<u>8,957</u>
Commitments and contingencies (Note 14)		
Series A convertible preferred stock, net of issuance costs, \$0.0001 par value; 28,522,592 shares authorized as of December 31, 2020 and June 30, 2021 (unaudited); 18,707,126 and 28,522,592 shares issued and outstanding as of December 31, 2020 and June 30, 2021 (unaudited), respectively; liquidation preference of \$47,647 and \$72,647 as of December 31, 2020 and June 30, 2021 (unaudited), respectively	47,034	72,327
Stockholders' deficit:		
Common stock, \$0.0001 par value; 40,000,000 shares authorized at December 31, 2020 and June 30, 2021 (unaudited); 4,850,000 shares issued and outstanding as of December 31, 2020 and June 30, 2021 (unaudited), respectively	1	1
Additional paid-in capital	262	1,029
Accumulated deficit	(28,546)	(48,104)
Total stockholders' deficit	<u>(28,283)</u>	<u>(47,074)</u>
Total liabilities, convertible preferred stock and stockholders' deficit	<u>\$ 25,296</u>	<u>\$ 34,210</u>

(1) Includes related party amounts of \$354 and \$89 at December 31, 2020 and June 30, 2021, respectively (see Note 13).

(2) Includes related party amounts of \$424 (accounts payable) at December 31, 2020; \$474 (accounts payable) and \$1,956 (accrued expenses and other current liabilities) at June 30, 2021 (see Note 13).

*The accompanying notes are an integral part of these consolidated financial statements.*

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## VIGIL NEUROSCIENCE, INC.

## CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

(In thousands, except share and per share amounts)

	Period from June 22, 2020 (Inception) to December 31, 2020	Period from June 22, 2020 (Inception) to June 30, 2020 (Unaudited)	Six Months Ended June 30, 2021 (Unaudited)
Operating expenses:			
Related party acquired in-process research and development	\$ 20,923	\$ —	\$ —
Research and development <sup>(3)</sup>	4,514	197	15,401
General and administrative	1,777	184	3,293
Total operating expenses	<u>27,214</u>	<u>381</u>	<u>18,694</u>
Loss from operations	<u>(27,214)</u>	<u>(381)</u>	<u>(18,694)</u>
Other income (expense):			
Change in fair value of the related party antidilution obligation	(1,307)	—	(836)
Change in fair value of Series A preferred stock tranche obligation	(24)	—	(28)
Interest income	—	—	3
Other expense, net	(1)	—	(3)
Total other expense, net	<u>(1,332)</u>	<u>—</u>	<u>(864)</u>
Net loss and comprehensive loss	<u>\$ (28,546)</u>	<u>\$ (381)</u>	<u>\$ (19,558)</u>
Net loss per share attributable to common stockholders, basic and diluted	<u>\$ (7.63)</u>	<u>\$ (3,810.10)</u>	<u>\$ (4.67)</u>
Weighted—average common shares outstanding, basic and diluted	<u>3,742,996</u>	<u>100</u>	<u>4,186,083</u>

(3) Includes related party amounts of \$811 for the period from June 22, 2020 (inception) to December 31, 2020 and \$2,462 for the six months ended June 30, 2021 (see Note 13).

*The accompanying notes are an integral part of these consolidated financial statements.*



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VIGIL NEUROSCIENCE, INC.

CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT

(In thousands, except share amounts)

	Series A Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount			
<b>Balances at June 22, 2020 (Inception)</b>	—	\$ —	—	\$ —	\$ —	\$ —	\$ —
Issuance of common stock	—	—	100	—	—	—	—
Net loss	—	—	—	—	—	(381)	(381)
<b>Balances at June 30, 2020 (Unaudited)</b>	—	—	100	—	—	(381)	(381)
Issuance of Series A convertible preferred stock in exchange for license and partial settlement of the related party antidilution obligation	6,928,566	17,483	—	—	—	—	—
Issuance of Series A convertible preferred stock, net of Series A preferred stock tranche obligation of \$233 and issuance costs of \$170	9,815,467	24,597	—	—	—	—	—
Conversion of SAFE notes to preferred stock, net of Series A preferred stock tranche obligation of \$46	1,963,093	4,954	—	—	—	—	—
Issuance of common stock	—	—	3,999,900	1	—	—	1
Stock-based compensation expense	—	—	—	—	262	—	262
Grant of restricted stock	—	—	850,000	—	—	—	—
Net loss	—	—	—	—	—	(28,165)	(28,165)
<b>Balances at December 31, 2020</b>	18,707,126	\$47,034	4,850,000	\$ 1	\$ 262	\$ (28,546)	\$ (28,283)
Issuance of Series A convertible preferred stock, net of issuance costs of \$121	7,852,373	19,879	—	—	—	—	—
Reclassification of Series A preferred stock tranche obligation upon settlement	—	331	—	—	—	—	—
Reclassification of the related party antidilution obligation upon settlement	1,963,093	5,083	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	767	—	767
Net loss	—	—	—	—	—	(19,558)	(19,558)
<b>Balances at June 30, 2021 (Unaudited)</b>	28,522,592	\$72,327	4,850,000	\$ 1	\$ 1,029	\$ (48,104)	\$ (47,074)

*The accompanying notes are an integral part of these consolidated financial statements.*

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**VIGIL NEUROSCIENCE, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(In thousands)

	Period from June 22, 2020 (Inception) to December 31, 2020	Period from June 22, 2020 (Inception) to June 30, 2020 (Unaudited)	Six Months Ended June 30, 2021 (Unaudited)
<b>Cash flows from operating activities:</b>			
Net loss	\$ (28,546)	\$ (381)	\$ (19,558)
Adjustments to reconcile net loss to net cash used by operating activities:			
Acquired in-process research and development	20,923	—	—
Stock-based compensation expense	262	—	767
Amortization of operating lease right-of-use assets	—	—	(17)
Change in fair value of the related party antidilution obligation	1,307	—	836
Change in fair value of Series A preferred stock tranche obligation	24	—	28
Depreciation	—	—	1
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	(1,145)	—	666
Accounts payable	1,107	—	3,166
Accrued expenses and other current liabilities	888	394	3,221
Other assets	—	(13)	(37)
Net cash used in operating activities	<u>(5,180)</u>	<u>—</u>	<u>(10,927)</u>
<b>Cash flows from investing activities:</b>			
Purchases of property and equipment	—	—	(70)
Payment made for Amgen license	(500)	—	—
Net cash used in investing activities	<u>(500)</u>	<u>—</u>	<u>(70)</u>
<b>Cash flows from financing activities:</b>			
Proceeds from issuance of convertible preferred stock, net of issuance costs paid	24,830	—	19,925
Payments of finance lease obligations	—	—	(20)
Net proceeds from SAFE notes	5,000	—	—
Net proceeds from issuance of common stock	1	—	—
<b>Net cash provided by financing activities</b>	<u>29,831</u>	<u>—</u>	<u>19,905</u>
<b>Net increase in cash and cash equivalents</b>	<u>24,151</u>	<u>—</u>	<u>8,908</u>
Cash and cash equivalents at beginning of period	—	—	24,151
Cash and cash equivalents at end of period	<u>\$ 24,151</u>	<u>\$ —</u>	<u>\$ 33,059</u>
<b>Supplemental disclosure of non-cash investing and financing activities:</b>			
Issuance of Series A convertible preferred stock in exchange for license and partial settlement of the related party antidilution obligation	\$ 17,483	\$ —	\$ —
Conversion of SAFE notes to Series A convertible preferred stock	\$ 4,954	\$ —	\$ —
Recognition of the related party antidilution obligation	\$ 3,992	\$ —	\$ —
Recognition of Series A preferred stock tranche obligation	\$ 279	\$ —	\$ —
Settlement of related party antidilution obligation	\$ —	\$ —	\$ 5,083
Settlement of Series A preferred stock tranche obligation	\$ —	\$ —	\$ 331
Right-of-use assets obtained in exchange for operating lease liabilities	\$ —	\$ —	\$ 534
Right-of-use assets obtained in exchange for financing lease liabilities	\$ —	\$ —	\$ 104
Unpaid issuance costs included in accrued expenses	\$ —	\$ —	\$ 46

*The accompanying notes are an integral part of these consolidated financial statements.*

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**VIGIL NEUROSCIENCE, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. Nature of the Business and Basis of Presentation**

Vigil Neuroscience, Inc., together with its consolidated subsidiary, Vigil Neuroscience Securities Corporation (“Vigil” or the “Company”), is a microglia-focused company dedicated to improving the lives of patients, caregivers and families affected by rare and common neurodegenerative diseases by pursuing the development of disease-modifying therapeutics to restore the vigilance of microglia, the sentinel immune cells of the brain. The Company’s initial focus is on developing a pipeline of therapeutic candidates that it believes will activate and restore microglia function, with an initial focus in genetically defined subpopulations. The Company was incorporated in the State of Delaware in June 2020 and is located in Cambridge, Massachusetts.

The Company is subject to risks and uncertainties common to early-stage companies in the biopharmaceutical industry, including, but not limited to, completing preclinical studies and clinical trials, the ability to raise additional capital to fund operations, obtaining regulatory approval for therapeutic candidates, market acceptance of products, competition from substitute products, protection of proprietary intellectual property, compliance with government regulations, the impact of the COVID-19 coronavirus, dependence on key personnel, reliance on third-party organizations and the clinical and commercial success of its therapeutic candidates. Even if the Company’s development efforts are successful, it is uncertain when, if ever, the Company will realize significant revenue from product sales.

***Going Concern***

The Company has evaluated whether there are certain conditions and events, considered in the aggregate, that raise substantial doubt about the Company’s ability to continue as a going concern within one year after the date that the consolidated financial statements are issued.

As of June 30, 2021 (unaudited), the Company had cash and cash equivalents of \$33.1 million. The Company has incurred recurring losses since its inception, including net losses of \$28.5 million for the period from June 22, 2020 (inception) to December 31, 2020 and \$19.6 million for the six months ended June 30, 2021 (unaudited). In addition, as of December 31, 2020 and June 30, 2021 (unaudited), the Company had an accumulated deficit of \$28.5 million and \$48.1 million, respectively. The Company expects to continue to generate significant operating losses for the foreseeable future. As of October 8, 2021 (unaudited), the issuance date of the consolidated financial statements for the period from June 22, 2020 (inception) to December 31, 2020 and of the interim consolidated financial statements for the period from June 22, 2020 (inception) to June 30, 2020 (unaudited) and the six months ended June 30, 2021 (unaudited), the Company expects that its existing cash and cash equivalents, including the \$90.0 million of gross proceeds it received from the issuance and sale of its Series B convertible preferred stock in August 2021 (see Note 15), will be sufficient to fund its operating expenses and capital expenditure requirements into the fourth quarter of 2022. The future viability of the Company beyond that point is dependent on its ability to raise additional capital to finance its operations.

The Company is seeking to complete an initial public offering (“IPO”) of its common stock. Immediately prior to the closing of a qualifying public offering on specified terms, the Company’s outstanding convertible preferred stock will automatically convert into common stock (see Notes 7 and 8).

In the event the Company does not complete an IPO, the Company expects to seek additional funding through private equity financings, government or private-party grants, debt financings or other capital sources, including collaborations with other companies or other strategic transactions. The Company may not be able to obtain financing on acceptable terms, or at all, and the Company may not be able to enter into collaborations or other arrangements. The terms of any financing may adversely affect the holdings or rights of the Company’s stockholders.

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If the Company is unable to obtain sufficient capital, the Company will be forced to delay, reduce or eliminate some or all of its research and development programs, product portfolio expansion or future commercialization efforts, which could adversely affect its business prospects, or the Company may be unable to continue operations. Although management continues to pursue these plans, there is no assurance that the Company will be successful in obtaining sufficient funding on terms acceptable to the Company to fund continuing operations, if at all.

Based on its recurring losses from operations incurred since inception, expectation of continuing operating losses for the foreseeable future, and the need to raise additional capital to finance its future operations, as of October 8, 2021, the issuance date of the consolidated financial statements for the period from June 22, 2020 (inception) to December 31, 2020 and of the interim consolidated financial statements for the period from June 22, 2020 (inception) to June 30, 2020 (unaudited) and the six months ended June 30, 2021 (unaudited), the Company has concluded that there is substantial doubt about its ability to continue as a going concern for a period of one year from the date that these consolidated financial statements are issued.

The accompanying consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of this uncertainty. Accordingly, the consolidated financial statements have been prepared on a basis that assumes the Company will continue as a going concern and which contemplates the realization of assets and satisfaction of liabilities and commitments in the ordinary course of business.

### ***Impact of the COVID-19 Coronavirus***

In March 2020, the World Health Organization declared the outbreak of COVID-19 a global pandemic. The Company is subject to a number of risks associated with the COVID-19 global pandemic, including potential delays associated with the Company's ongoing preclinical studies and anticipated clinical trials. COVID-19 may have an adverse impact on the Company's operations, supply chains and distribution systems or those of our third-party vendors and collaborators, and increase expenses, including as a result of impacts associated with preventive and precautionary measures that are being taken, such as restrictions on travel and border crossings, quarantine policies and social distancing. The Company and its third-party vendors and collaborators may experience disruptions in supply of items that are essential for its research and development activities. In addition, the spread of COVID-19 has disrupted global healthcare and healthcare regulatory systems, which could divert healthcare resources away from, or materially delay, U.S. Food and Drug Administration approval and approval by other health authorities worldwide with respect to its therapeutic candidates. Furthermore, the Company's anticipated clinical trials may be negatively affected by the COVID-19 outbreak. Site initiation, patient enrollment and patient follow-up visits may be delayed, for example, due to prioritization of hospital resources toward the COVID-19 outbreak, travel restrictions, the inability to access sites for initiation and monitoring, and difficulties recruiting or retaining patients in the Company's planned clinical trials. Management cannot at this time predict the specific extent, duration, or full impact that the COVID-19 outbreak will have on the Company's financial condition, operations, and business plans for the fourth quarter of 2021 and beyond. If the Company does not successfully commercialize any of its therapeutic candidates, it will be unable to generate product revenue or achieve profitability.

### ***Basis of Presentation***

The accompanying consolidated financial statements reflect the operations of the Company and its wholly-owned subsidiary. Intercompany balances and transactions have been eliminated in consolidation. The accompanying consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States of America ("GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASU") of the Financial Accounting Standards Board ("FASB").

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**2. Summary of Significant Accounting Policies**

***Use of Estimates***

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of expenses during the reporting periods. Significant estimates and assumptions reflected in these consolidated financial statements include, but are not limited to, research and development expenses and related prepaid or accrued costs and the valuation of common stock, Related Party Antidilution Obligation (as defined in Note 12) and Series A Preferred Stock Tranche Obligation (as defined within this Note 2). The Company bases its estimates on historical experience, known trends and other market-specific or relevant factors that it believes to be reasonable under the circumstances. On an ongoing basis, management evaluates its estimates as there are changes in circumstances, facts and experience. Changes in estimates are recorded in the period in which they become known. Actual results may differ from those estimates or assumptions.

***Unaudited Interim Financial Information***

The accompanying consolidated balance sheet as of June 30, 2021, the consolidated statements of operations and comprehensive loss, cash flows and of convertible preferred stock and stockholders' deficit for the period from June 22, 2020 (inception) to June 30, 2020 and for the six months ended June 30, 2021 are unaudited. The June 30, 2021 unaudited consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements for the period from June 22, 2020 (inception) to December 31, 2020 and in the opinion of management, reflect all adjustments which include only normal recurring adjustments necessary for the fair statement of the Company's financial position as of June 30, 2021 and the results of its operations and its cash flows for the six months ended June 30, 2021. The financial data and other information disclosed in these notes related to the six months ended June 30, 2021 are also unaudited. The results of the six months ended June 30, 2021, are not necessarily indicative of results to be expected for the year ending December 31, 2021, any other interim periods, or any future year or period.

***Cash and Cash Equivalents***

The Company considers all highly liquid investments with a remaining maturity when purchased of three months or less to be cash equivalents. Cash equivalents are reported at fair value. At December 31, 2020 and June 30, 2021 (unaudited), the Company's cash and cash equivalents are primarily in money market funds. As of each balance sheet date and periodically throughout the year, the Company has maintained balances in various operating accounts in excess of federally insured limits.

***Deferred Offering Costs***

The Company capitalizes certain legal, accounting and other third-party fees that are directly associated with in-process equity financings as deferred offering costs until such financings are consummated. After consummation of the equity financing, these costs are recorded as a reduction of the proceeds from the offering, either as a reduction of the carrying value of preferred stock or in stockholders' deficit as a reduction of additional paid-in capital generated as a result of the offering. Should the in-process equity financing be abandoned, the deferred offering costs would be expensed immediately as a charge to operating expenses in the consolidated statement of operations and comprehensive loss. The Company had no deferred offering costs recorded as of December 31, 2020. As of June 30, 2021 (unaudited), the Company had deferred offering costs totaling \$37 thousand.

***Concentrations of Credit Risk and Off-Balance Sheet Risk***

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents. The Company maintains its cash and cash equivalents with high quality, accredited

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financial institutions and, accordingly, such funds are subject to minimal credit risk. The Company has no significant off-balance sheet concentrations of credit risk, such as foreign currency exchange contracts, option contracts or other hedging arrangements.

The Company is dependent on third-party organizations to manufacture and process its therapeutic candidates for its development programs. In particular, the Company relies on a single third-party contract manufacturer, Fujifilm Diosynth Biotechnologies U.S.A., Inc. (“FUJIFILM”), to produce clinical supply and process its current product candidate, VGL101 pursuant to the FUJIFILM agreement (see Note 12). The Company expects to continue to be dependent on a small number of manufacturers to supply it with its requirements for all products. The Company’s research and development programs, including any associated potential commercialization efforts, could be adversely affected by a significant interruption in the supply of the necessary materials.

The Company is dependent on a limited number of third parties that provide license rights used by the Company in the development and potential commercialization of its therapeutic candidates and programs. Through December 31, 2020 and June 30, 2021 (unaudited), the Company’s research and development programs primarily relate to rights conveyed by Amgen, Inc. (“Amgen”) (see Note 12). The Company could experience delays in the development and potential commercialization of its therapeutic candidates and programs if the Amgen license arrangement or any other license agreement utilized in the Company’s research and development activities is terminated, if the Company fails to meet the obligations required under its arrangements, or if the Company is unable to successfully secure new strategic alliances or licensing agreements.

### ***Fair Value Measurements***

Certain assets and liabilities of the Company are carried at fair value under GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

- Level 1 – Quoted prices in active markets for identical assets or liabilities.
- Level 2 – Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
- Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

The Company’s cash equivalents, Related Party Antidilution Obligation and Series A Preferred Stock Tranche Obligation are carried at fair value, determined according to the fair value hierarchy described above (see Note 3). The carrying values of the Company’s accounts payable and accrued expenses approximate their fair values, due to the short-term nature of these liabilities.

### ***Research and Development Expenses***

Research and development expenses are expensed as incurred. Research and development expenses consist of costs incurred in performing research and development activities, including amounts incurred under agreements with external vendors and consultants engaged to perform preclinical studies and to manufacture research and development materials for use in such studies, salaries and related personnel costs, stock-based compensation, consultant fees, and third-party license fees.

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Upfront payments under license agreements are expensed upon receipt of the license, and annual maintenance fees under license agreements are expensed over the maintenance period. Milestone payments under license agreements are accrued, with a corresponding expense being recognized, in the period in which the milestone is determined to be probable of achievement and the related amount is reasonably estimable.

Nonrefundable advance payments for goods or services to be received in the future for use in research and development activities are recorded as prepaid expenses. The prepaid amounts are expensed as the related goods are delivered or the services are performed.

### ***Patent Costs***

Costs to secure, defend and maintain patents, including those incurred in connection with filing and prosecuting patent applications, are expensed as incurred due to the uncertainty about the recovery of the expenditure. Amounts incurred for patent-related expenditures are classified as general and administrative expenses in the consolidated statements of operations and comprehensive loss.

### ***Accrued Research and Development Expenses***

The Company has entered into various research, development and manufacturing contracts with third-party service providers, including contract research organizations and contract manufacturing organizations. These agreements are generally cancelable. The Company recognizes research and development expense associated with such arrangements as the costs are incurred and records accruals for estimated ongoing research, development and manufacturing costs, where necessary. When billing terms under these contracts do not coincide with the timing of when the work is performed, the Company is required to make estimates of outstanding obligations to those third parties as of period end. Any accrual estimates are based on a number of factors, including the Company's knowledge of the progress towards completion of the specific tasks to be performed, invoicing to date under the contracts, communication from the vendors of any actual costs incurred during the period that have not yet been invoiced and the costs included in the contracts. Significant judgments and estimates may be made in determining the accrued balances at the end of any reporting period. Actual results could differ from the estimates made by the Company. The historical accrual estimates made by the Company have not been materially different from the actual costs.

### ***Acquired In-Process Research and Development Expenses***

The Company measures and recognizes asset acquisitions or licenses to intellectual property that are not deemed to be business combinations based on the cost to acquire or license the asset or group of assets, which includes transaction costs. Goodwill is not recognized in asset acquisitions or transaction to license intellectual property. In an asset acquisition or license to intellectual property, the cost allocated to acquire in-process research and development ("IPR&D") with no alternative future use is recognized as expense on the acquisition date.

Upfront and milestone payments made are accrued for and expensed when the achievement of the milestone is probable up to the point of regulatory approval. Milestone payments made upon regulatory approval are capitalized and amortized over the remaining useful life of the related product.

Acquired IPR&D expense recognized for the period from June 22, 2020 (inception) to December 31, 2020 consisted of (i) \$20.4 million initial recognition of a Related Party Antidilution Obligation that obligates the Company to issue shares of the Series A convertible preferred stock equal to 25% of the Company's capital stock until the Company has raised \$45.0 million in net cash proceeds from equity financings and (ii) the upfront cash consideration for the license arrangement of \$0.5 million (see Note 12).

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### ***Comprehensive Loss***

Comprehensive loss includes net loss as well as other changes in stockholders' deficit that result from transactions and economic events other than those with stockholders. There was no difference between net loss and comprehensive loss for each of the periods presented in the accompanying consolidated financial statements.

### ***Stock-Based Compensation***

The Company grants stock-based awards to employees, directors and non-employee consultants in the form of stock options to purchase shares of its common stock. The Company measures stock options with service-based vesting granted to employees, non-employees and directors based on the fair value of the award on the date of the grant using the Black-Scholes option-pricing model. The Company measures restricted common stock awards using the difference, if any, between the purchase price per share of the award and the fair value of the Company's common stock at the date of the grant. Compensation expense for employee awards is recognized over the requisite service period, which is generally the vesting period of the award. Compensation expense for non-employee awards is recognized in the same manner as if the Company had paid cash in exchange for the goods or services, which is generally the vesting period of the award. The Company uses the straight-line method to record the expense of awards with service-based vesting conditions. For stock awards that have a performance condition, the Company recognizes compensation expense based on its assessment of the probability that the performance condition will be achieved, using an accelerated attribution model, over the explicit or implicit service period. The Company accounts for forfeitures as they occur.

The Company classifies stock-based compensation expense in its statements of operations and comprehensive loss in the same manner in which the award recipient's salary and related costs are classified or in which the award recipient's service payments are classified.

The Black-Scholes option-pricing model requires inputs based on certain subjective assumptions, which determine the fair value of stock-based awards, including the price, volatility of the underlying stock, the option's expected term, the risk-free interest rate and expected dividends. The Company calculates the fair value of options granted by using the Black-Scholes option-pricing model with the following assumptions:

*Expected Volatility* – Due to the lack of a public market for the Company's common stock and a lack of company-specific historical and implied volatility data, the Company has based its estimate of expected volatility on the historical volatility of a group of similar companies that are publicly traded. The historical volatility is calculated based on a period commensurate with the expected term assumption.

*Expected Term* – The expected term of the Company's options represents the period that the stock-based awards are expected to be outstanding. The Company uses the simplified method to calculate the expected term, as it does not have sufficient historical exercise data to develop reasonable expectations about future exercise patterns and post-vesting employment termination behavior.

*Risk-Free Interest Rate* – The risk-free interest rate is based on yield from the United States Treasury zero-coupon bonds whose term is consistent with the expected term of the stock options.

*Dividend Yield* – The expected dividend yield is assumed to be zero as the Company has never paid dividends and has no current plans to pay any dividends.

### ***Classification and Accretion of Convertible Preferred Stock***

The Company's convertible preferred stock is classified outside of stockholders' deficit in the consolidated balance sheets because the holders of such shares have liquidation rights in the event of a deemed liquidation that, in certain circumstances, is not solely within the control of the Company and would require the redemption of the then-outstanding convertible preferred stock. The Company's Series A convertible preferred stock are not redeemable, except in the event of deemed liquidation (see Note 7). Because the occurrence of a deemed



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liquidation event is not currently probable, the carrying values of the convertible preferred stock are not being accreted to their redemption values. Subsequent adjustments to the carrying values of the convertible preferred stock would be made only when a deemed liquidation event becomes probable.

The Company records convertible preferred stock at fair value upon issuance, net of the Series A Preferred Stock Tranche Obligation (see to Note 7 for details of the Series A Preferred Stock Tranche Obligation) and associated issuance costs. The Company's convertible preferred stock is subject to a non-cumulative dividend when, as and if declared by the Company's board of directors (the "Board"). Since the issuance of the Company's outstanding convertible preferred stock, no dividends have been declared on any shares of convertible preferred stock.

### **Segment Information**

The Company manages its operations as a single segment for the purposes of assessing performance and allocating resources. The Company is focused on microglia biology to improve the lives of patients, caregivers, and families affected by rare and common neurodegenerative diseases through development of disease-modifying treatments that aim to restore the vigilance of microglia, the sentinel immune cells of the brain. The Company's chief operating decision maker reviews the Company's financial information on an aggregated basis for purposes of assessing performance and allocating resources. All assets are in the United States. The Company has not earned any revenue through June 30, 2021 (unaudited).

### **Property and Equipment**

Property and equipment are stated at cost less accumulated depreciation. Depreciation is recognized using the straight-line method over the estimated useful life of each asset as follows:

	<b>Useful Life</b>
Computer software and equipment	3 years
Office equipment	5 years
Lab equipment	5 years
Leasehold improvements	Lesser of (i) useful life or (ii) lease term

Costs for capital assets not yet placed into service are capitalized as construction-in-progress and depreciated once placed into service. Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation and amortization are removed from the accounts and any resulting gain or loss is included in loss from operations. Expenditures for repairs and maintenance that do not improve or extend the life of the respective assets are charged to expense in the period incurred.

Depreciation expense was \$1 thousand during the six months ended June 30, 2021 (unaudited). The Company did not have property and equipment during the period from June 22, 2020 (inception) to June 30, 2020 (unaudited) and from June 22, 2020 (inception) to December 31, 2020.

### **Series A Preferred Stock Tranche Obligation**

The Company's Series A Convertible Preferred Stock Purchase Agreement obligated the Series A investors to participate in a subsequent offering of Series A convertible preferred stock upon the achievement of specified development milestones by the Company.

The Company classified this Series A Preferred Stock Tranche Obligation as a liability in its consolidated balance sheets (the "Series A Preferred Stock Tranche Obligation") as the preferred stock tranche right was a freestanding financial instrument that would require the Company to transfer assets upon exercise of the right.

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The Series A Preferred Stock Tranche Obligation was initially recorded at fair value upon the issuance date of the preferred stock tranche right and was subsequently remeasured to fair value at each reporting date until settled (see Note 3). Changes in fair value of the Series A Preferred Stock Tranche Obligation were recognized within change in fair value of the Series A Preferred Stock Tranche Obligation in the consolidated statements of operations and comprehensive loss.

***Impairment of Long-Lived Assets***

Long-lived assets consist of property and equipment, operating lease and financing lease right-to-use assets. Long-lived assets to be held and used are tested for recoverability whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. Factors that the Company considers in deciding when to perform an impairment review include significant underperformance of the business in relation to expectations, significant negative industry or economic trends, and significant changes or planned changes in the use of the assets. If an impairment review is performed to evaluate a long-lived asset group for recoverability, the Company compares forecasts of undiscounted cash flows expected to result from the use and eventual disposition of the long-lived asset group to its carrying value. An impairment loss would be recognized in loss from operations when estimated undiscounted future cash flows expected to result from the use of an asset group are less than its carrying amount. Impairment is measured based on the excess of the carrying value of the related assets over the fair value of such assets. The Company did not record any impairment losses on long-lived assets during the period from June 22, 2020 (inception) to December 31, 2020, the period from June 22, 2020 (inception) to June 30, 2020 (unaudited) or the six months ended June 30, 2021 (unaudited).

***Income Taxes***

The Company accounts for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the consolidated financial statements or in the Company's tax returns. Deferred tax assets and liabilities are determined on the basis of the differences between financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Changes in deferred tax assets and liabilities are recorded in the provision for income taxes. The Company assesses the likelihood that its deferred tax assets will be recovered from future taxable income, and to the extent it believes, based upon the weight of available evidence, that it is more likely than not that all or a portion of the deferred tax assets will not be realized, a valuation allowance is established through a charge to income tax expense. Potential for recovery of deferred tax assets is evaluated by estimating the future profits expected and considering prudent and feasible tax planning strategies.

The Company accounts for uncertainty in income taxes recognized in the consolidated financial statements by applying a two-step process to determine the amount of tax benefit to be recognized. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon external examination by the taxing authorities. If the tax position is deemed more likely than not to be sustained, the tax position is then assessed to determine the amount of benefit to recognize in the consolidated financial statements. The amount of the benefit that may be recognized is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. The provision for income taxes includes the effects of any resulting tax reserves, or unrecognized tax benefits, that are considered appropriate as well as the related net interest and penalties. The Company's policy is to record estimated interest and penalties related to uncertain tax positions as a component of income tax expense. The Company had no amounts accrued for interest and penalties in its consolidated balance sheet as of June 30, 2021 (unaudited).

***Leases***

In accordance with ASC 842, *Leases*, the Company determines if an arrangement is or contains a lease at inception. A contract is or contains a lease if the contract conveys the right to control the use of an identified

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asset for a period of time in exchange for consideration. The Company classifies leases at the lease commencement date as operating or finance leases and records a right-of-use asset and a lease liability on the consolidated balance sheet for all leases with an initial lease term of greater than 12 months. Leases with an initial term of 12 months or less are not recorded in the balance sheet, but payments are recognized as expense on a straight-line basis over the lease term. The Company has elected not to recognize leases with terms of 12 months or less.

A lease qualifies as a finance lease if any of the following criteria are met at the inception of the lease: (i) there is a transfer of ownership of the leased asset to the Company by the end of the lease term, (ii) the Company holds an option to purchase the leased asset that it is reasonably certain to exercise, (iii) the lease term is for a major part of the remaining economic life of the leased asset, (iv) the present value of the sum of lease payments equals or exceeds substantially all of the fair value of the leased asset, or (v) the nature of the leased asset is specialized to the point that it is expected to provide the lessor no alternative use at the end of the lease term. All other leases are recorded as operating leases.

The Company enters into contracts that contain both lease and non-lease components. Non-lease components may include maintenance, utilities, and other operating costs. The Company combines the lease and non-lease components of fixed costs in its lease arrangements as a single lease component. Variable costs, such as utilities or maintenance costs, are not included in the measurement of right-of-use assets and lease liabilities, but rather are expensed when the event determining the amount of variable consideration to be paid occurs.

Finance and operating lease assets and liabilities are recognized at the lease commencement date based on the present value of the lease payments over the lease term using the discount rate implicit in the lease. If the rate implicit is not readily determinable, the Company utilizes an estimate of its incremental borrowing rate based upon the available information at the lease commencement date. Operating lease assets are further adjusted for prepaid or accrued lease payments. Operating lease payments are expensed using the straight-line method as an operating expense over the lease term. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Finance lease assets are amortized to depreciation expense using the straight-line method over the shorter of the useful life of the related asset or the lease term. Finance lease payments are bifurcated into (i) a portion that is recorded as imputed interest expense and (ii) a portion that reduces the finance liability associated with the lease.

Certain of the Company's leases include options to extend or terminate the lease. The amounts determined for the Company's right-of-use assets and lease liabilities generally do not assume that renewal options or early-termination provisions, if any, are exercised, unless it is reasonably certain that the Company will exercise such options.

### ***Net Income (Loss) Per Share***

The Company follows the two-class method when computing net income (loss) per common share as the Company has issued shares that meet the definition of participating securities. The two-class method determines net income (loss) per common share for each class of common and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires income (loss) available to common stockholders for the period to be allocated between common and participating securities based upon their respective rights to receive dividends as if all income for the period had been distributed. The Company considers its (i) convertible preferred stock, (ii) restricted stock, and (iii) SAFE notes (as defined in Note 12) during the periods they were outstanding (See Note 7) to be participating securities as, in the event a dividend is paid on common stock, the holders of these securities would be entitled to receive dividends on a basis consistent with the common stockholders. The Company also considers the shares issued upon the early exercise of stock options that are subject to repurchase to be participating securities because holders of such shares have non-forfeitable dividend rights in the event a dividend is paid on common stock. There is no allocation required under the two-class method during periods of loss since the participating securities do not have a contractual obligation to share in the losses of the Company.

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Basic net income (loss) per common share is computed by dividing the net income (loss) per common share by the weighted-average number of common shares outstanding for the period. Diluted net income (loss) per common share is computed by adjusting net income (loss) to reallocate undistributed earnings based on the potential impact of dilutive securities. Diluted net loss per common share is computed by dividing the diluted net loss by the weighted-average number of common shares outstanding for the period, including potential dilutive common shares. For purpose of this calculation, outstanding stock options, SAFE notes, convertible preferred stock and unvested restricted common stock are considered potential dilutive common shares.

In periods in which the Company reported a net loss, diluted net loss per common share was the same as basic net loss per common share, since dilutive common shares were not assumed to have been issued if their effect was anti-dilutive. The Company reported a net loss for the period from June 22, 2020 (inception) to December 31, 2020, the period from June 22, 2020 (inception) to June 30, 2020 (unaudited) and for the six months ended June 30, 2021 (unaudited).

### **Recently Adopted Accounting Pronouncements**

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)* (“ASU 2016-02”), which sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract (i.e., lessees and lessors). The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less may be accounted for similar to existing guidance for operating leases today. For non-public entities, ASU 2016-02 is effective for annual reporting periods beginning after December 15, 2021, including interim periods within those fiscal years, and early adoption is permitted. The Company elected to early adopt ASU 2016-02 as of June 22, 2020 (inception). See Note 11.

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (ASC 740): Simplifying the Accounting for Income Taxes* (“ASU 2019-12”). ASU 2019-12 simplifies the accounting for income taxes by removing certain exceptions to the general principles in ASC 740 and clarifies and amends existing guidance to improve consistent application. The amendment that removed the incremental approach for intra-period tax allocations when there is a loss from continuing operations and income or a gain from other items, including, but not limited to discontinued operations or other comprehensive income should be applied on a prospective basis. The Company early adopted ASU 2019-12 effective January 1, 2021. The adoption of this new standard did not have a material impact on the Company’s financial statements.

### **Recently Issued Accounting Pronouncements**

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and adopted by the Company as of the specified effective date. The Company qualifies as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012 and has elected not to “opt out” of the extended transition related to complying with new or revised accounting standards, which means that when a standard is issued or revised and it has different application dates for public and non-public companies, the Company can adopt the new or revised standard at the time non-public companies adopt the new or revised standard and can do so until such time that the Company either (i) irrevocably elects to “opt out” of such extended transition period or (ii) no longer qualifies as an emerging growth company. The Company may choose to early adopt any new or revised accounting standards whenever such early adoption is permitted for non-public companies.

In August 2020, the FASB issued ASU No. 2020-06, *Debt, Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity’s Own Equity (Subtopic 815-40)*:

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*Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*, which, among other things, provides guidance on how to account for contracts on an entity's own equity. This ASU simplifies the accounting for certain financial instruments with characteristics of liabilities and equity. Specifically, the ASU eliminated the need for the Company to assess whether a contract on the entity's own equity (1) permits settlement in unregistered shares, (2) whether counterparty rights rank higher than shareholder's rights, and (3) whether collateral is required. In addition, the ASU requires incremental disclosure related to contracts on the entity's own equity and clarifies the treatment of certain financial instruments accounted for under this ASU on earnings per share. The ASU also simplifies the accounting for convertible instruments by removing the beneficial conversion feature and cash conversion feature separation models. This ASU may be applied on a full retrospective or modified retrospective basis. This ASU is effective for private companies for fiscal years beginning after December 15, 2023, with early adoption permitted. The Company does not expect the adoption to materially impact its financial position and results of operations.

**3. Fair Value Measurements**

The following table presents the Company's fair value hierarchy for its assets and liabilities items that are measured at fair value on a recurring basis as of December 31, 2020 and June 30, 2021 (unaudited), by level within the fair value hierarchy (in thousands):

	Fair Value Measurement at December 31, 2020 Using:			
	Level 1	Level 2	Level 3	Total
<b>Assets:</b>				
Cash and cash equivalents	\$24,151	\$ —	\$ —	\$24,151
	<u>\$24,151</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$24,151</u>
<b>Liabilities:</b>				
Related party antidilution obligation	\$ —	\$ —	\$4,247	\$ 4,247
Series A preferred stock tranche obligation	—	—	303	303
	<u>\$ —</u>	<u>\$ —</u>	<u>\$4,550</u>	<u>\$ 4,550</u>

	Fair Value Measurement at June 30, 2021 Using:			
	Level 1	Level 2	Level 3	Total
<b>Assets:</b>				
Cash and cash equivalents	\$33,059	\$ —	\$ —	\$33,059
	<u>\$33,059</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$33,059</u>

The Company evaluates transfers between levels at the end of each reporting period. There were no transfers between Level 1, Level 2 or Level 3 during the period from June 22, 2020 (inception) to December 31, 2020, the period from June 22, 2020 (inception) to June 30, 2020 (unaudited) and for the six months ended June 30, 2021 (unaudited).

***Related Party Antidilution Obligation***

The Company was obligated to issue Series A convertible preferred stock with an antidilution provision as part of a license agreement with Amgen (see Note 12). The Related Party Antidilution Obligation is included within the Level 3 fair value hierarchy. The Related Party Antidilution Obligation was valued using a probability-weighted expected return method. The valuation model requires a variety of inputs, including the probability of occurrence of events that would trigger the issuance of additional shares, the expected timing of such events, the expected value of the contingently issuable equity upon occurrence of a triggering event and a discount rate. The Related Party Antidilution Obligation was remeasured at each reporting date, with changes in

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fair value recognized within changes in fair value of the Related Party Antidilution Obligation in the consolidated statements of operations and comprehensive loss.

The significant unobservable inputs used in the valuation model to measure the Related Party Antidilution Obligation that are categorized within Level 3 of the fair value hierarchy, as of December 31, 2020 are as follows:

Expected term (years)	0.83
Risk-free rate	0.15%
Probability of finance event occurring	85%

At inception in July 2020, the Company recorded a \$20.4 million liability related to the Related Party Antidilution Obligation. On September 18, 2020, the Company completed the first closing pursuant to the Series A Convertible Preferred Stock Purchase Agreement which triggered the partial settlement of a Related Party Antidilution Obligation resulting in the issuance of 6,928,566 Series A convertible preferred stock to Amgen with a fair value of \$17.5 million. As such, on September 18, 2020, the Related Party Antidilution Obligation was partially settled through this issuance of \$17.5 million of Series A preferred stock.

On May 28, 2021, the Company completed the second closing pursuant to the Series A Convertible Preferred Stock Purchase Agreement which resulted in the Company raising net cash proceeds from financing activities in excess of the \$45.0 million Related Party Antidilution Obligation cap. The second closing triggered the settlement of the remaining Related Party Antidilution Obligation, resulting in the issuance of 1,963,093 shares of Series A convertible preferred stock to Amgen with a fair value of \$5.1 million.

**Series A Preferred Stock Tranche Obligation**

The Series A Preferred Stock Tranche Obligation was valued using a probability-weighted present value model. The valuation model considered the probability of closing the tranche, the estimated future value of the Series A convertible preferred stock to be issued at each closing and the investment required at each closing. Future values were converted to present value using a discount rate appropriate for probability-adjusted cash flows.

The significant unobservable inputs used in the valuation model to measure the Series A Preferred Stock Tranche Obligation that are categorized within Level 3 of the fair value hierarchy as of December 31, 2020 and May 1, 2021 (settlement) are as follows:

	December 31, 2020	May 1, 2021
Probability of meeting Series A milestones	85%	95%
Time until Series A milestones (years)	0.83	0.50
Risk-free rate	0.08%	0.03%
Expected value adjustment to Series A if second tranche milestones are not met	10%	10%

The Related Party Antidilution Obligation and Series A Preferred Stock Tranche Obligation were settled during the six months ended June 30, 2021 (unaudited) (see Note 7).

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The following table sets forth a rollforward of changes in the fair value of financial liabilities classified as Level 3 in the fair valued hierarchy (in thousands):

	Related Party Antidilution Obligation	Series A Preferred Stock Tranche Obligation	Total
Beginning balance at June 22, 2020 (inception)	\$ —	\$ —	\$ —
Issuance of related party antidilution obligation and Series A preferred stock tranche obligation	20,423	279	20,702
Change in fair value	1,307	24	1,331
Issuance of Series A preferred shares in partial settlement of related party antidilution obligation	(17,483)	—	(17,483)
Ending balance at December 31, 2020	<u>\$ 4,247</u>	<u>\$ 303</u>	<u>\$ 4,550</u>
Change in fair value through the settlement date	836	28	864
Reclassification of Series A preferred stock tranche obligation and related party antidilution obligation upon settlement	(5,083)	(331)	(5,414)
Ending balance at June 30, 2021 (unaudited)	<u><u>\$ —</u></u>	<u><u>\$ —</u></u>	<u><u>\$ —</u></u>

#### 4. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following (in thousands):

	December 31, 2020	June 30, 2021 (Unaudited)
Research and development	\$ 1,075	\$ 426
Other	70	53
Total	<u><u>\$ 1,145</u></u>	<u><u>\$ 479</u></u>

#### 5. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	December 31, 2020	June 30, 2021 (Unaudited)
Research and development	\$ 292	\$ 2,673
Payroll and employee related	512	853
Professional fees	68	480
Other	16	148
Total	<u><u>\$ 888</u></u>	<u><u>\$ 4,154</u></u>

#### 6. Stock-Based Compensation

##### 2020 Equity Incentive Plan

The Company's 2020 Equity Incentive Plan (the "2020 Plan") provides for the Company to grant incentive stock options or non-qualified stock options, stock appreciation rights, restricted stock awards, restricted stock units, and other equity awards to employees, directors, and consultants of the Company. The 2020 Plan is administered by the Board or, at the discretion of the Board, by a committee of the Board. The Board may also delegate to one or more officers of the Company the power to grant awards to employees and certain officers of the Company. The exercise prices, vesting and other restrictions are determined at the discretion of the Board, or its committee or any such officer if so delegated.

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Under the 2020 Plan, the Company authorized 4,157,140 shares of its common stock for issuance upon exercise of options granted under the 2020 Plan as of December 31, 2020. On June 4, 2021, the Company amended the 2020 Plan (the “2021 Plan Amendment”) to increase the aggregate number of shares of the Company’s common stock reserved for issuance pursuant to the 2020 Plan by 1,732,141 shares, from 4,157,140 shares to a new total of 5,889,281 shares, and increased the aggregate number of shares of the Company’s common stock that may be issued pursuant to the exercise of incentive stock options by 5,196,423 shares, from 12,471,420 shares to a new total of 17,667,843 shares.

Options under the 2020 Plan may be designated as incentive stock options or non-statutory stock options. The options granted under the 2020 Plan are either service-based options or performance-based options.

**Service-Based Stock Options**

The Company issues stock options to directors, employees, and consultants under the 2020 Plan. Options granted by the Company vest over periods of 36-48 months, subject in each case to the individual’s continued service through the applicable vesting date. Options vest either (i) 25% at the one-year anniversary followed by 36 equal monthly installments beginning one month after the one-year anniversary of the vesting start date or (ii) 36 equal monthly installments beginning one month after the vesting start date. Options generally expire 10 years after the date of the grant.

The following table summarizes the activity of the Company’s options to purchase common stock for the period from June 22, 2020 (inception) to December 31, 2020:

	Number of Shares	Weighted- Average Grant Date Fair Value	Weighted- Average Exercise Price Per Share	Weighted- Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of June 22, 2020 (inception)	—	\$ —	\$ —		
Granted	2,639,684	0.98	0.68		
Exercised	—	—	—		
Forfeited	—	—	—		
Expired	—	—	—		
Outstanding as of December 31, 2020	<u>2,639,684</u>	<u>0.98</u>	<u>\$ 0.68</u>	<u>9.88</u>	<u>\$ 1,557</u>
Vested and exercisable as of December 31, 2020	6,944	\$ 0.98	\$ 0.68	9.88	\$ 4
Vested and expected to vest as of December 31, 2020	2,639,684	\$ 0.98	\$ 0.68	9.88	\$ 1,557

The total fair value of options vested during the period from June 22, 2020 (inception) to December 31, 2020 was approximately \$7 thousand.



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The following table summarizes the activity of the Company's options to purchase common stock for the six months ended June 30, 2021 (unaudited):

	Number of Shares	Weighted-Average Grant Date Fair Value	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2020	2,639,684	\$ 0.98	\$ 0.68	9.88	\$ 1,557
Granted	1,711,749	0.93	1.28		
Exercised	—	—	—		
Forfeited	—	—	—		
Expired	—	—	—		
Outstanding as of June 30, 2021 (unaudited)	<u>4,351,433</u>	<u>—</u>	<u>\$ 0.92</u>	<u>9.59</u>	<u>\$ 1,927</u>
Vested and exercisable as of June 30, 2021 (unaudited)	15,277		\$ 0.68	9.39	\$ 10
Vested and expected to vest as of June 30, 2021 (unaudited)	4,351,433		\$ 0.92	9.59	\$ 1,927

The total fair value of options vested during the six months ended June 30, 2021 (unaudited) was approximately \$8 thousand.

**Stock Option Valuation**

The following assumptions on a weighted-average basis were used to determine the fair value of stock options for the following periods:

	Period from June 22, 2020 (Inception) to December 31, 2020	Six Months Ended June 30, 2021 (Unaudited)
Weighted-average risk-free interest rate	0.5%	1.0%
Weighted-average expected term (in years)	5.9	6.0
Expected volatility	80.4% - 81.0%	79.4% - 80.2%
Expected dividend yield	0.0%	0.0%
Fair value of common stock	\$ 1.27	\$ 1.36
Weighted-average fair value	\$ 0.98	\$ 0.93

**Performance-Based Stock Options**

During the period from June 22, 2020 (inception) to December 31, 2020, the Company granted performance-based stock options to purchase 635,118 shares of common stock. The performance-based options commence vesting upon the Company completing the second tranche of its Series A convertible preferred stock financing and then vest over 48 equal monthly installments. The Company completed the second tranche of its Series A convertible preferred stock financing in May 2021.

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The following table summarizes the activity of the Company's performance-based options to purchase common stock for the period from June 22, 2020 (inception) to December 31, 2020:

	<u>Number of Shares</u>	<u>Weighted-Average Grant Date Fair Value</u>	<u>Weighted-Average Exercise Price Per Share</u>	<u>Weighted-Average Remaining Contractual Term (in years)</u>	<u>Aggregate Intrinsic Value (in thousands)</u>
Outstanding as of June 22, 2020 (inception)	—	\$ —	\$ —		
Granted	635,118	0.98	0.68		
Exercised	—	—	—		
Forfeited	—	—	—		
Expired	—	—	—		
Outstanding as of December 31, 2020	<u>635,118</u>	<u>\$ 0.98</u>	<u>\$ 0.68</u>	<u>9.88</u>	<u>\$ 375</u>
Vested and exercisable as of December 31, 2020	—	\$ 0.98	\$ —		
Vested and expected to vest as of December 31, 2020	635,118	\$ 0.98	\$ 0.68	9.88	\$ 375

No options vested during the period from June 22, 2020 (inception) to December 31, 2020.

The following table summarizes the activity of the Company's performance-based options to purchase common stock for the six months ended June 30, 2021 (unaudited):

	<u>Number of Shares</u>	<u>Weighted-Average Grant Date Fair Value</u>	<u>Weighted-Average Exercise Price Per Share</u>	<u>Weighted-Average Remaining Contractual Term (in years)</u>	<u>Aggregate Intrinsic Value (in thousands)</u>
Outstanding as of December 31, 2020	635,118	\$ 0.98	\$ 0.68	9.88	\$ 375
Granted	—	—	—		
Exercised	—	—	—		
Forfeited	—	—	—		
Expired	—	—	—		
Outstanding as of June 30, 2021 (unaudited)	<u>635,118</u>	<u>\$ 0.98</u>	<u>\$ 0.68</u>	<u>9.39</u>	<u>\$ 432</u>
Vested and exercisable as of June 30, 2021 (unaudited)	26,463	\$ 0.98	\$ 0.68	9.39	\$ 18
Vested and expected to vest as of June 30, 2021 (unaudited)	635,118	\$ 0.98	\$ 0.68	9.39	\$ 432

The total fair value of options vested during the six months ended June 30, 2021 (unaudited) was approximately \$26 thousand.

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The fair value for performance options granted under the stock option plan are determined at the date of grant using the Black-Scholes option-pricing model, and the following assumptions were used for grants:

	<b>Period from June 22, 2020 (Inception) to December 31, 2020</b>
Weighted-average risk-free interest rate	0.5%
Expected term (in years)	5.9
Expected volatility	81.0%
Expected dividend yield	0.0%
Fair value of common stock	\$ 1.27
Weighted-average fair value	\$ 0.98

The Company did not grant performance-based stock options during the six months ended June 30, 2021 (unaudited).

**Restricted Stock**

The following table summarizes the activity of the Company's restricted stock:

	<b>Period from June 22, 2020 (Inception) to December 31, 2020</b>	<b>Six Months Ended June 30, 2021 (Unaudited)</b>
Outstanding as of beginning of period	—	850,000
Granted	850,000	—
Outstanding as of end of period	850,000	850,000
Vested during period	123,956	106,250
Outstanding and expected to vest	726,044	619,794
Remaining weighted-average vesting period for unvested shares	3.33 years	2.83 years
Grant date fair value	\$ 0.87	\$ —
Amount grantees paid per share	\$ 0.0001	\$ —

In July 2020, the Company granted 850,000 restricted shares that vest in 48 equal monthly installments commencing on the one-month anniversary of the vesting commencement date. Shares of restricted common stock granted to employees and directors are not deemed, for accounting purposes, to be outstanding until those shares have vested. For a period of up to 120 days from a grantee's termination, the Company has an irrevocable option to repurchase unvested restricted shares at the lower of (i) the purchase price per share (\$0.0001) or (ii) the fair market value per share as of the date of repurchase.

The fair value of the restricted shares granted was equal to the fair value of the Company's common stock on the date of grant. The fair value of the Company's common stock was determined using an option pricing method which utilized a market approach.

**FOIA Confidential Treatment Requested*****Stock-Based Compensation Expense***

The Company recorded stock-based compensation of \$262 thousand and \$767 thousand in the period from June 22, 2020 (inception) to December 31, 2020 and during the six months ended June 30, 2021 (unaudited), respectively. Stock-based compensation expense was classified as follows in the consolidated statements of operations and comprehensive loss (in thousands):

	<b>Period from June 22, 2020 (Inception) to December 31, 2020</b>	<b>Six Months Ended June 30, 2021 (Unaudited)</b>
Research and development	\$ 93	\$ 270
General and administrative	169	497
<b>Total stock-based compensation</b>	<b>\$ 262</b>	<b>\$ 767</b>

The Company did not record stock-based compensation expense during the period June 22, 2020 (inception) to June 30, 2020 (unaudited) as no awards were granted during the period.

As of December 31, 2020 and June 30, 2021 (unaudited), respectively, there is approximately \$2.5 million and \$3.6 million of unrecognized stock-based compensation expense related to service-based options to purchase common stock under the 2020 Plan, which is expected to vest over a weighted-average period of 3.62 years and 3.40 years.

As of December 31, 2020 and June 30, 2021 (unaudited), respectively, there is approximately \$0.6 million and \$0.4 million of unrecognized stock-based compensation expense related to performance-based options to purchase common stock under the 2020 Plan, which is expected to vest over a weighted-average period of 4.32 years and 3.83 years.

As of December 31, 2020 and June 30, 2021 (unaudited), respectively, there is approximately \$0.6 million and \$0.5 million of unrecognized stock-based compensation expense related to restricted stock under the 2020 Plan, which is expected to vest over a weighted-average period of 3.33 years and 2.84 years.

**7. Preferred Stock*****Simple Agreement for Future Equity***

In July 2020, the Company entered into a Simple Agreement for Future Equity ("SAFE") with Atlas Venture Fund XII, L.P., a related party (see Note 13), receiving \$5.0 million of aggregate gross proceeds in exchange for the investor's right to participate in a future equity financing. The SAFE contained a number of conversion and redemption provisions, including settlement upon liquidity or dissolution events. On September 18, 2020, Atlas Venture Fund XII, L.P. exercised its right to convert the SAFE notes in connection with the Company's Series A equity financing and exchanged the SAFE notes for an aggregate of 1,963,093 shares of Series A convertible preferred stock, with a fair value of \$5.0 million at issuance. The fair value of the Series A convertible preferred stock issued in exchange for the SAFE notes was offset by \$46 thousand related to the Series A Preferred Stock Tranche Obligation, as discussed below.

***Series A Convertible Preferred Stock and Series A Preferred Stock Tranche Obligation***

On September 18, 2020, the Company entered into the Series A Convertible Preferred Stock Purchase Agreement with its initial investors committing to purchase an aggregate of \$50.0 million in shares of Series A convertible preferred stock. At the initial closing, 9,815,467 shares of Series A convertible preferred stock were

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issued by the Company at a purchase price of \$2.547 per share, for gross cash proceeds of \$25.0 million. The gross proceeds were offset by \$0.2 million of issuance costs and \$0.2 million related to the Series A Preferred Stock Tranche Obligation, discussed below.

Included in the terms of the September 2020 Series A Convertible Preferred Stock Purchase Agreement were certain rights (“Series A Preferred Stock Tranche Obligation”) granted to the investors who purchased the Series A convertible preferred stock in September 2020. The Series A Preferred Stock Tranche Obligation contingently obligated the investors to purchase, and the Company to sell, up to an aggregate of 7,852,373 shares of Series A convertible preferred stock at \$2.547 per share upon the satisfaction of specified research and development milestones by the Company.

The Company concluded that the Series A Preferred Stock Tranche Obligation met the definition of a freestanding financial instrument, as the Series A Preferred Stock Tranche Obligation was legally detachable and separately exercisable from the Series A convertible preferred stock. Therefore, the Company allocated the proceeds from the September 2020 issuance between the Series A Preferred Stock Tranche Obligation and the Series A convertible preferred stock, including those issued in exchange for the SAFE. As the Series A convertible preferred stock is redeemable upon a deemed liquidation event at the election of the holder-controlled Board, and therefore outside of the control of the Company, the Series A Preferred Stock Tranche Obligation was classified as a liability and recorded at its fair value of \$0.3 million at both inception and as of December 31, 2020. The Series A Preferred Stock Tranche Obligation was remeasured at fair value at each reporting period, with changes in fair value recorded in change in fair value of the Series A Preferred Stock Tranche Obligation in the consolidated statements of operations and comprehensive loss (see Note 3).

On May 28, 2021, the Company issued 7,852,373 shares of its Series A convertible preferred stock at \$2.547 per share, for which the Company received gross proceeds of \$20.0 million, offset by issuance costs of \$0.1 million. As a result of this issuance, the Series A Preferred Stock Tranche Obligation with a then fair value of approximately \$0.3 million was settled and reclassified to Series A convertible preferred stock in the consolidated balance sheet.

Upon issuance of the Series A convertible preferred stock, the Company assessed the embedded conversion and liquidation features of the securities and determined that such features did not require the Company to separately account for these features. The Company also concluded that no beneficial conversion feature existed upon the issuance date of the Series A convertible preferred stock or as of December 31, 2020 and June 30, 2021 (unaudited).

The holders of Series A convertible preferred stock have the followings rights and privileges:

#### ***Dividends***

Holders of the Series A convertible preferred stock are entitled to receive non-cumulative dividends when, as and if declared by the Board at a rate of 8% of the Original Issue Price (as defined below) per share (the “Dividend Rate”), subject to adjustment. Holders of Series A convertible preferred stock will have preference to any dividends being declared or paid on common stock. The Company has not, and has no plans to, declare dividends on any class of preferred or common stock.

#### ***Liquidation***

In the event of any liquidation, dissolution, or winding-up of the Company, which would include the sale of the Company, the Series A convertible preferred stock is senior to common stock. The holders of the Series A convertible preferred stock would be entitled to preferential payment in the amount of \$2.547 per share (the “Original Issue Price”). In the event that there are additional assets to be distributed, the holders of the Series A convertible preferred stock will share in the distribution along with common stockholders as if the shares of Series A convertible preferred stock had converted to common stock immediately prior to the distribution.

**FOIA Confidential Treatment Requested*****Voting***

The holders of Preferred Stock are entitled to vote, together with the holders of common stock, on matters submitted to stockholders for a vote. The holders of Preferred Stock are entitled to the number of votes equal to the number of shares of common stock into which the shares of Preferred Stock could convert on the record date for determination of stockholders entitled to vote. The Series A convertible preferred stock are entitled to the number of votes equal to the number of shares of common stock into which the shares of Series A convertible preferred stock held by each holder are then convertible.

***Conversion***

The holders of the Series A convertible preferred stock may convert, at any time, each share of Series A convertible preferred stock into shares of common stock at the Series A Conversion Price. The Series A Conversion Price is initially equal to the Original Issue Price, subject to adjustment. Upon either (a) the closing of the sale of shares of common stock to the public at a price of at least three times the Series A Original Issue Price (subject to adjustment) in an initial public offering with net proceeds to the Company of at least \$50.0 million or (b) the written consent of the holders of a majority of the outstanding shares of Series A convertible preferred stock, the Series A convertible preferred stock will automatically convert into common stock at the Series A Conversion Price then in effect. The Series A preferred stock is convertible into 18,707,126 and 28,522,592 shares of common stock as of December 31, 2020 and June 30, 2021 (unaudited), respectively.

**8. Common Stock**

The voting, dividend, and liquidation rights of the holders of the Company's common stock are subject to and qualified by the rights, powers, and preferences of the holders of the Series A convertible preferred stock. Each share of common stock entitles the holder to one vote for each share of common stock held. Common stockholders are entitled to receive dividends, as may be declared by the Company's Board, if any, subject to the preferential dividend rights of the Series A convertible preferred stock. Through December 31, 2020 and June 30, 2021 (unaudited), no dividends have been declared or paid.

The Company has reserved the following number of shares of common stock for the exercise of outstanding stock options and future issuance of stock-based awards.

	<b>December 31, 2020</b>	<b>June 30, 2021 (Unaudited)</b>
Common stock options and restricted shares outstanding	4,000,846	5,606,345
Shares available for issuance under the 2020 Plan	882,338	902,730
Series A convertible preferred stock outstanding	<u>18,707,126</u>	<u>28,522,592</u>
Total common stock reserved for future issuance	<u>23,590,310</u>	<u>35,031,667</u>

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**9. Net Loss per Share**

Basic and diluted net loss per common share attributable to common stockholders was calculated as follows (in thousands, except share and per share amounts):

	Period from June 22, 2020 (Inception) to December 31, 2020	Period from June 22, 2020 (Inception) to June 30, 2020 (Unaudited)	Six Months Ended June 30, 2021 (Unaudited)
Numerator:			
Net loss attributable to common stockholders	\$ (28,546)	\$ (381)	\$ (19,558)
Denominator:			
Weighted-average common shares outstanding, basic and diluted	3,742,996	100	4,186,083
Net loss per share attributable to common stockholders, basic and diluted	<u>\$ (7.63)</u>	<u>\$ (3,810.10)</u>	<u>\$ (4.67)</u>

The Company's potentially dilutive securities have been excluded from the computation of diluted net loss per common share as the effect would be to reduce the net loss per common share. Therefore, the weighted-average number of common shares outstanding used to calculate both basic and diluted net loss per common share is the same. The Company excluded the following potential common shares, presented based on amounts outstanding at each period end, from the computation of diluted net loss per common share for the periods indicated because including them would have had an anti-dilutive effect:

	Period from June 22, 2020 (Inception) to December 31, 2020	Period from June 22, 2020 (Inception) to June 30, 2020 (Unaudited)	Six Months Ended June 30, 2021 (Unaudited)
Series A convertible preferred stock	18,707,126	—	28,522,592
Related party antidilution obligation	1,963,093	—	—
Options to purchase common stock – service based	2,639,684	—	4,351,433
Options to purchase common stock – performance based	635,118	—	635,118
Unvested restricted common stock	726,044	—	619,794
Total	<u>24,671,065</u>	<u>—</u>	<u>34,128,937</u>

**10. Income Taxes**

The Company's income tax provision was computed based on the federal statutory rate and the average state statutory rates, net of the related federal benefit. The Company did not record a federal or state income tax provision or benefit during the period from June 22, 2020 (inception) to December 31, 2020, the period from June 22, 2020 (inception) to June 30, 2020 (unaudited), and for the six months ended June 30, 2021 (unaudited), respectively due to the pre-tax net losses incurred. In addition, the Company has recorded a full valuation allowance against its net deferred tax assets at December 31, 2020.

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The Company's effective income tax rate differs from the statutory federal income tax rate as follows for the period from June 22, 2020 (inception) to December 31, 2020:

Statutory U.S. federal rate	21.00%
State income taxes (NoFB)	6.24%
Other permanent differences	(0.21%)
Research and development credits	0.22%
Valuation allowance	(27.25%)
Effective Tax Rate	<u>0.00%</u>

Deferred income taxes reflect the net tax effects of loss and credit carryforwards and temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The Company's deferred income tax assets and liabilities at December 31, 2020 were comprised of the following (in thousands):

	<u>December 31,</u> <u>2020</u>
Deferred tax assets:	
Net operating loss carryforwards	\$ 1,432
Research and development credits	62
Intangible assets	6,032
Start-up costs	99
Accruals and other	155
Total deferred tax assets	<u>7,780</u>
Valuation allowance	<u>(7,780)</u>
Net deferred tax assets (liabilities)	<u>\$ —</u>

In assessing the realization of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Based on the level of historical operating results and the uncertainty of the economic conditions, the Company has recorded a valuation allowance of \$7.8 million at December 31, 2020.

At December 31, 2020, the Company had federal net operating losses ("NOLs") of approximately \$5.3 million and state NOLs of \$5.2 million. As a result of the Tax Act, for U.S. income tax purposes, NOLs generated for tax years beginning after December 31, 2017 carry forward indefinitely and can be used to offset taxable income. The total federal NOLs of \$5.3 million as of December 31, 2020 will not expire. The state NOL carryover of \$5.2 million will begin to expire in 2036.

Pursuant of Internal Revenue Code ("IRC") Sections 382 and 383, annual use of the Company's net operating loss and research and development credit carryforwards may be limited in the event a cumulative change in ownership of more than 50% occurs within a three-year period. The Company has not completed an ownership change analysis pursuant to IRC Section 382. If ownership changes within the meaning of IRC Section 382 are identified as having occurred, the amount of remaining tax attribute carryforwards available to offset future taxable income and income tax expense in future years may be significantly restricted or eliminated. Further, the Company's deferred tax assets associated with such tax attributes could be significantly reduced upon realization of an ownership change within the meaning of IRC Section 382 that has occurred or may occur in the future. Any adjustment to the Company's tax attributes as a result of an ownership change will result in a



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corresponding decrease to the valuation allowance recorded against the Company's deferred tax assets. As of December 31, 2020, the Company also has state tax research and development credit carryforwards of approximately \$78 thousand to offset future income taxes, which will begin to expire in 2029. As of December 31, 2020, the Company also has no federal tax research and development credit carryforwards.

The Company's valuation allowance increased during the period from June 22, 2020 (inception) to December 31, 2020, due primarily to the generation of an intangible asset of \$6.1 million and \$1.4 million related to NOL carryforwards.

The Company has not incurred any material interest or penalties as of the current reporting date with respect to income tax matters. The Company does not expect that there will be unrecognized tax benefits of a significant nature that will increase or decrease within 12 months of the reporting date. The Company is subject to U.S. Federal income tax as well as income tax in Massachusetts. Carryforward attributes that were generated in years where the statute of limitations is closed may still be adjusted upon examination by the Internal Revenue Service or other respective tax authority.

The unrecognized tax benefit amounts are not reflected in the determination of the Company's deferred tax assets. If recognized, none of these amounts would affect the Company's effective tax rate, since it would be offset by an equal corresponding adjustment in the deferred tax asset valuation allowance. The Company assesses the uncertainty in its income tax positions to determine whether a tax position of the Company is more likely than not to be sustained upon examination, including resolution of any related appeals of litigation processes, based on the technical merits of the position. For tax positions meeting the more-likely-than-not threshold, the tax amount recognized in the financial statements is reduced by the largest benefit that has a greater than 50% likelihood of being realized upon the ultimate settlement with the relevant taxing authority. As of December 31, 2020 and June 30, 2021 (unaudited), the Company had not recorded any reserves for uncertain tax positions or related interest and penalties.

The Company files income tax returns as prescribed by the tax laws of the jurisdictions in which it operates. In the normal course of business, the Company is subject to examination by federal and state jurisdictions, where applicable. As of June 30, 2021 (unaudited), there were no pending tax examinations. No federal or state tax audits are currently in process.

#### 11. Leases

The Company did not enter into any lease agreements for the period from June 22, 2020 (inception) to June 30, 2020 (unaudited).

In February 2021, the Company entered into an equipment lease with lease term of 24 months commencing in April 2021. The lease includes an option to purchase the equipment at fair market value at the end of the lease term (see Note 13).

In July 2021, the Company entered into a lease for laboratory space in Cambridge, Massachusetts, with an initial term of one year commencing in April 2021, with a month-to-month option to renew at the end of the initial lease term (see Note 13). At inception, the Company determined that it was reasonably certain that it would elect options to renew the lease through September 2022 and have included these renewal options into the determination of the lease term.

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The components of lease expense are as follows:

	Period from June 22, 2020 (Inception) to December 31, 2020	Six Months Ended June 30, 2021 (Unaudited)
Operating lease cost	\$ —	\$ 76
Short term lease cost	23	47
Variable lease cost		5
Finance lease cost:		
Amortization of right-to-use assets	—	3
Interest on lease liabilities	—	1
<b>Total finance lease cost</b>	<b>\$ —</b>	<b>\$ 4</b>

As the Company did not enter into any lease agreements until after June 30, 2020, it did not incur lease expense during the period from June 22, 2020 (inception) to June 30, 2020 (unaudited).

Supplemental cash flow information related to leases are as follows:

	Period from June 22, 2020 (Inception) to December 31, 2020	Six Months Ended June 30, 2021 (Unaudited)
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases	\$ —	\$ 55
Operating cash flows from finance leases	\$ —	\$ 1
Financing cash flows from finance leases	\$ —	\$ 1

At June 30, 2021, the weighted-average remaining lease terms related to the finance and operating leases are 1.3 years and 2.1 years, respectively.

As the Company's operating leases did not provide an implicit rate, the Company used its incremental borrowing rate based on the information available in determining the present value of lease payments. The Company's incremental borrowing rate was based on the term of the lease, the economic environment of the lease and reflect the rate the Company would have had to pay to borrow on a secured basis. The weighted-average discount rates used at the time that the leases were evaluated were 3.26% for the finance leases and 5.35% for the operating leases.

Future minimum lease payments due under the Company's operating and finance lease liabilities as of June 30, 2021 are as follows:

<b>Six months ended June 30, 2021 (Unaudited)</b>	<b>Operating Leases</b>	<b>Financing Leases</b>
2021 (excluding six months ended June 30, 2021)	\$ 159	\$ 20
2022	265	45
2023	41	24
2024	—	—
2025	—	—
Thereafter	—	—
<b>Total lease payments</b>	<b>465</b>	<b>89</b>
Less: imputed interest	(20)	(5)
<b>Total future minimum lease payments</b>	<b>\$ 445</b>	<b>\$ 84</b>

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**12. Related Party License Agreement**

***Amgen, Inc.***

In July 2020, the Company entered into an Exclusive License Agreement and Letter Agreement (collectively, the “Amgen Agreement”) with Amgen, pursuant to which the Company has been granted an exclusive, royalty-bearing sublicensable license to certain intellectual property rights owned or controlled by Amgen, to commercially develop, manufacture, use, distribute and sell therapeutic products containing compounds that bind to Trigger Receptor Expressed on Myeloid cells 2 (“TREM2”).

As initial consideration for the license, the Company made a one-time, non-creditable, non-refundable upfront payment of \$0.5 million. As additional consideration for the license, the Company is required to pay Amgen up to \$80.0 million in the aggregate upon the achievement of specified regulatory milestones for the first monoclonal antibody agonist of TREM2 agonist (“mAb”) product and the first small molecule TREM2 agonist product and aggregate milestone payments of up to \$350.0 million upon the achievement of specific commercial milestones across all mAb products and small molecule products. No regulatory or commercial milestones have been achieved to date under the Amgen Agreement. The Company is also required to pay tiered royalties of low to mid single-digit percentages on annual net sales of the products covered by the license. In the event that the exploitation of a product is not covered by a valid claim within the licensed patent rights, then the royalty rate with respect to the net sales shall be subject to a customary reduction by a certain percentage. The royalty term will terminate on a country-by-country basis on the later of (i) the expiration date of the last valid claim within the licensed patent rights, and (ii) the tenth (10th) anniversary of the first commercial sale of such product in such country. Further, the Company is required to reimburse Amgen for amounts it paid to its contract manufacturers on the Company’s behalf of \$3.2 million through June 30, 2021 (unaudited). These costs are recognized as research and development expense over the period that the goods are provided, as applicable.

In addition to the cash consideration described above, the Company agreed to issue Series A convertible preferred stock to Amgen in an amount equal to 25% of the Company’s capital stock on a fully diluted basis (the “Related Party Antidilution Obligation”) until the Company has raised an aggregate of \$45.0 million net cash proceeds from equity financings. The Company determined that the Related Party Antidilution Obligation was required to be recorded as a liability because it was a freestanding instrument that would require the Company to transfer assets to settle the obligation and it is indexed to an obligation to contingently redeem the Company’s equity shares. Accordingly, the Company recognized the liability at fair value on the acquisition date and recognizes changes in the fair value of the anti-dilution rights at each subsequent reporting period in the change in fair value of the Related Party Antidilution Obligation in the consolidated statements of operations and comprehensive loss (see Note 3).

On September 18, 2020, the Company completed the first closing pursuant to the Series A Convertible Preferred Stock Purchase Agreement which triggered the Related Party Antidilution Obligation resulting in the issuance of 6,928,566 Series A convertible preferred stock to Amgen with a fair value of \$17.5 million.

On May 28, 2021, the Company completed the second closing pursuant to the Series A Convertible Preferred Stock Purchase Agreement which resulted in the Company raising net cash proceeds from financing activities in excess of the \$45.0 million Related Party Antidilution Obligation cap. Amgen received an additional 1,963,093 Series A convertible preferred stock with a fair value of \$5.1 million.

As of August 31, 2021, Amgen owned approximately 15.08% of the Company’s outstanding shares of capital stock.

The Company determined that the Amgen Agreement represented an asset acquisition of IPR&D assets with no alternative future use and recognized the aggregate acquisition cost as related party acquired in-process research and development expense in the consolidated statement of operations and comprehensive loss. The acquisition did not qualify as a business combination as the acquisition did not include both an input and substantive processes, including an assembled workforce, that together contribute to the ability to create outputs.

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For the period from June 22, 2020 (inception) to December 31, 2020 the Company recognized \$20.9 million of related party acquired in-process research and development expense in connection with the consideration due under the Amgen Agreement. The \$20.9 million consisted of (i) \$20.4 million initial recognition of the Related Party Antidilution Obligation that obligates the Company to issue shares of the Series A convertible preferred stock equal to 25% until the Company has raised \$45.0 million in net cash proceeds from equity financings and (ii) the upfront cash consideration for the license arrangement of \$0.5 million. The Company did not incur IPR&D expense in connection with the Amgen Agreement during the period from June 22, 2020 (inception) to June 30, 2020 (unaudited) and the six months ended June 30, 2021 (unaudited).

Amounts paid with respect to goods provided by Amgen on the Company's behalf under the Amgen Agreement are recognized as research and development expense as such amounts are incurred. For the period from June 22, 2020 (inception) to December 31, 2020 and for the six months ended June 30, 2021 (unaudited), the Company recognized \$0.8 million and \$2.4 million, respectively, of expense in connection with goods provided by Amgen. The Company did not incur research and development expense during the period from June 22, 2020 (inception) to June 30, 2020 (unaudited) in connection with goods provided by Amgen.

### **13. Related Party Transactions**

#### ***Atlas***

The Company entered into various lease agreements with Atlas Venture Fund XII, L.P., a principal stockholder of the Company, and incurred lease costs of less than \$0.1 million for the period from June 22, 2020 (inception) to December 31, 2020 and \$0.1 million for the six months ended June 30, 2021 (unaudited). The lease payments are included in general and administrative expenses in the consolidated statements of operations and comprehensive loss. There were no lease costs incurred by the Company for the period from June 22, 2020 (inception) to June 30, 2020 (unaudited). The Company recorded an operating lease right-of-use asset and a lease liability for \$0.3 million and \$0.3 million as of June 30, 2021 (unaudited). The right-of-use asset is included in operating lease right-of-use assets and the lease liability is included as an operating lease liability in the Company's consolidated balance sheet as of June 30, 2021 (unaudited). In addition, as of December 31, 2020, the Company recognized \$9 thousand in accounts payable and as of June 30, 2021 (unaudited), the Company recognized \$69 thousand in accrued expenses associated with the leases.

The Company also issued SAFE notes to Atlas Venture Fund XII, L.P. (see Note 7).

#### ***Amgen, Inc.***

Under the Amgen Agreement, the Company was obligated to issue shares of Series A convertible preferred stock to Amgen, a principal stockholder of the Company. Additionally, in consideration for the rights assigned and license conveyed under the Amgen Agreement, Amgen received upfront consideration in the form of Series A convertible preferred stock, is entitled to receive milestone and royalty payments upon specified conditions and received payments from the Company for providing ongoing services under the agreement (see Note 12).

Expenses to reimburse Amgen's contract manufacturers incurred by the Company were \$0.8 million and \$2.4 million in the period from June 22, 2020 (inception) to December 31, 2020 and during the six months ended June 30, 2021 (unaudited), respectively. These costs are included in research and development expense in the consolidated statements of operations and comprehensive loss.

As of December 31, 2020, \$0.4 million was due to Amgen by the Company and was included in accounts payable in the consolidated balance sheet. As of June 30, 2021 (unaudited), \$2.4 million was due to Amgen by the Company. Of this amount, \$0.5 million and \$1.9 million was included in accounts payable and accrued expenses and other current liabilities, respectively in the Company's consolidated balance sheet as of June 30, 2021 (unaudited).

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As of December 31, 2020 and June 30, 2021 (unaudited), \$0.4 million and \$0.1 million associated with a prepaid reservation fee related to services due to the Company by Amgen. The amounts were included in prepaid expenses and other current assets in the Company's consolidated balance sheets as of December 31, 2020 and June 30, 2021 (unaudited).

### 14. Commitments and Contingencies

#### *License Agreement*

The Company has entered into a license agreement with Amgen (see Note 12).

#### *Contingencies*

From time to time, the Company may have certain contingent liabilities that arise in the ordinary course of business. The Company accrues a liability for such matters when it is probable that future expenses will be incurred and can be reasonably estimated. During the period from June 22, 2020 (inception) to December 31, 2020 and the six months ended June 30, 2021 (unaudited), the Company was not a party to any pending material litigation or other material legal proceedings.

#### *401(k) Plan*

The Company has a defined-contribution plan under Section 401(k) of the Internal Revenue Code of 1986 (the "401(k) Plan"). The 401(k) Plan covers all employees who meet defined minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pre-tax basis. As currently established, the Company is not required to make, and to date has not made, any contributions to the 401(k) Plan.

#### *Indemnification Agreements*

In the ordinary course of business, the Company may provide indemnification of varying scope and terms to vendors, lessors, contract research organizations, business partners, and other parties with respect to certain matters including, but not limited to, losses arising out of breach of such agreements or from intellectual property infringement claims made by third parties. In addition, the Company has entered into indemnification agreements with members of its Board and certain of its executive officers that will require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors or officers. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is, in many cases, unlimited. The Company has not incurred any material costs as a result of such indemnifications and is not currently aware of any indemnification claims.

#### *Legal Proceedings*

The Company is not currently party to any material legal proceedings. At each reporting date, the Company evaluates whether or not a potential loss amount or a potential range of loss is probable and reasonably estimable under the provisions of the authoritative guidance that addresses accounting for contingencies. The Company expenses as incurred the costs related to such legal proceedings.

### 15. Subsequent Events

For its consolidated financial statements as of December 31, 2020 and for the period from June 22, 2020 (inception) to December 31, 2020 and for its interim consolidated financial statements as of June 30, 2021 (unaudited) and for the six months then ended, the Company has evaluated subsequent events through October 8, 2021, the date on which those financial statements were issued.

**FOIA Confidential Treatment Requested*****Issuance and Sale of Series B Convertible Preferred Stock***

On August 13, 2021, the Company issued 25,657,096 shares of its Series B convertible preferred stock at \$3.5078 per share, for which the Company received gross proceeds of \$90.0 million. Issuance costs were \$0.2 million.

The terms of the Series B convertible preferred stock are substantially the same as the terms of the Series A convertible preferred stock (see Note 7), except that the Original Issue Price and the Conversion Price of the Series B convertible preferred stock is \$3.5078 per share. There were no tranche rights associated with the issuance of the Series B convertible preferred stock.

Upon issuance of these shares of Series B convertible preferred stock, the Company assessed the embedded conversion and liquidation features of the shares and determined that such features did not require the Company to separately account for these features. The Company also concluded that no beneficial conversion feature existed as of the issuance date of the shares of Series B Preferred Stock.

***Increase in Shares Authorized for Issuance under the 2020 Plan***

On August 12, 2021, the Company amended the 2020 Plan to increase the aggregate number of shares of the Company's common stock reserve for issuance pursuant to the 2020 Plan by 3,500,000 shares to a new total of 9,389,281 shares.

***Grant of Stock Options under the 2020 Plan***

The Company granted options to purchase 3,115,115 shares of common stock to its employees and directors pursuant to the 2020 Plan. The exercised price and aggregate grant-date fair value of these options are summarized below and are expected to be recognized as stock-based compensation expense over a period of four years.

<u>Grant Date</u>	<u>Shares Granted</u>	<u>Exercise Price</u>	<u>Grant-Date Fair Value (in thousands)</u>
July 2021	131,111	\$ 2.17	\$ 193
August 2021	2,602,754	2.17	3,814
September 2021	381,250	2.17	622
Total	3,115,115		\$ 4,629

***Leases***

In September 2021, the Company entered into a lease for laboratory and office space in Watertown, Massachusetts with an initial term of ten years, and a five-year renewal option at the end of the initial lease term. The monthly lease payment is approximately \$0.2 million with annual escalation of approximately 3%. The lease includes a \$3.7 million construction allowance. The lease is expected to commence in the second quarter of 2022.

In September 2021, the Company terminated its related party leases with Atlas Venture Fund XII, L.P (see Note 13).

***Purchase Commitment***

In August 2021, the Company entered into a letter agreement with FUJIFILM, its contract manufacturer, to purchase goods and was required to make a non-refundable prepayment of \$4.5 million in September 2021.

***Letter of Credit***

In September 2021, the Company entered into a \$0.9 million standby letter of credit which expires in December 2032 associated with the Watertown, MA lease noted above.

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*Shares*



*Common Stock*

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*PRELIMINARY PROSPECTUS*

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*Morgan Stanley*

*Jefferies*

*Stifel*

*Guggenheim Securities*

*Until \_\_\_\_\_, 2021 (25 days after the date of this prospectus), all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.*

*\_\_\_\_\_, 2021*

**FOIA Confidential Treatment Requested****PART II****Information Not Required in Prospectus****Item 13. Other Expenses of Issuance and Distribution.**

The following table sets forth the fees and expenses, other than underwriting discounts and commissions, payable in connection with the registration of the common stock hereunder. All amounts are estimates except the SEC registration fee.

	<b>Amount to be Paid</b>
SEC registration fee	\$ *
FINRA filing fee	*
Nasdaq Global Market listing fee	*
Printing and mailing	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous	*
Total	<u>\$ *</u>

\* To be completed by amendment.

**Item 14. Indemnification of Directors and Officers.**

Section 145 of the Delaware General Corporation Law, or DGCL, authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact that they have served or are currently serving as a director or officer to a corporation. The indemnity may cover expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys' fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

We have adopted provisions in our certificate of incorporation to be in effect upon the closing of this offering and bylaws to be in effect upon the effectiveness of this registration statement that limit or eliminate the personal liability of our directors to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not alter director liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.



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In addition, our bylaws provide that:

- we will indemnify our directors, officers and, in the discretion of our board of directors, certain employees to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended; and
- we will advance reasonable expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of us, subject to limited exceptions.

We have entered into indemnification agreements with each of our directors and intend to enter into such agreements with our executive officers. These agreements provide that we will indemnify each of our directors, our executive officers and, at times, their affiliates to the fullest extent permitted by Delaware law. We will advance expenses, including attorneys' fees (but excluding judgments, fines and settlement amounts), to each indemnified director, executive officer or affiliate in connection with any proceeding in which indemnification is available and we will indemnify our directors and officers for any action or proceeding arising out of that person's services as a director or officer brought on behalf of us or in furtherance of our rights. Additionally, certain of our directors or officers may have certain rights to indemnification, advancement of expenses or insurance provided by their affiliates or other third parties, which indemnification relates to and might apply to the same proceedings arising out of such director's or officer's services as a director referenced herein. Nonetheless, we have agreed in the indemnification agreements that our obligations to those same directors or officers are primary and any obligation of such affiliates or other third parties to advance expenses or to provide indemnification for the expenses or liabilities incurred by those directors are secondary.

We also maintain general liability insurance which covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act of 1933, as amended (the Securities Act).

The underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification of us and our directors and officers by the underwriters against certain liabilities under the Securities Act and the Securities Exchange Act of 1934.

### **Item 15. Recent Sales of Unregistered Securities.**

In the three years preceding the filing of this registration statement, we have issued the following securities that were not registered under the Securities Act:

#### ***(a) Issuances of Capital Stock***

Set forth below is information regarding securities we have issued within the past three years that were not registered under the Securities Act.

In June and July 2020, we issued and sold an aggregate of 4,850,000 shares of Common Stock at a purchase price of \$0.0001 per share for an aggregate purchase price of approximately \$485.

In September 2020, we issued and sold an aggregate of 11,778,560 shares of Series A Preferred Stock at a purchase price of \$2.547 per share for an aggregate purchase price of approximately \$30 million (including \$5 million of outstanding simple agreement for future equity, or SAFE, which was converted into shares of Series A Preferred Stock). Additionally, we issued 6,928,566 shares of Series A Preferred Stock pursuant to certain agreements with Amgen Inc. See "Certain Relationships and Related Party Transaction—Agreements with Our Stockholders—Amgen Agreements."

In May 2021, we issued and sold an aggregate of 7,852,373 shares of Series A Preferred Stock at a purchase price of \$2.547 per share for an aggregate purchase price of approximately \$20 million. Additionally, we issued

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1,963,093 shares of Series A Preferred Stock pursuant to certain agreements with Amgen Inc. See “Certain Relationships and Related Party Transaction—Agreements with Our Stockholders—Amgen Agreements.”

In August 2021, we issued and sold an aggregate of 25,657,096 shares of Series B Preferred Stock at a purchase price of \$3.5078 per share for an aggregate purchase price of approximately \$90 million.

No underwriters were involved in the foregoing sales of securities. Unless otherwise stated, the sales of securities described above were deemed to be exempt from registration pursuant to Section 4(a)(2) of the Securities Act, including Regulation D and Rule 506 promulgated thereunder, as transactions by an issuer not involving a public offering. All of the purchasers in these transactions represented to us in connection with their purchase that they were acquiring the securities for investment and not distribution, that they could bear the risks of the investment and could hold the securities for an indefinite period of time. Such purchasers received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration or an available exemption from such registration. All of the foregoing securities are deemed restricted securities for the purposes of the Securities Act.

**(b) Grants and Exercises of Stock Options**

Through August 31, 2021, we have granted stock options to purchase an aggregate of 7,720,416 shares of our common stock, with a weighted average exercise price of \$1.34 per share, to employees, directors and consultants pursuant to the 2020 Plan. Since 2020, no shares of common stock have been issued upon the exercise of stock options pursuant to the 2020 Plan.

The issuances of the securities described above were deemed to be exempt from registration pursuant to Section 4(a)(2) of the Securities Act or Rule 701 promulgated under the Securities Act as transactions pursuant to compensatory benefit plans. The shares of common stock issued upon the exercise of options are deemed to be restricted securities for purposes of the Securities Act.

**Item 16. Exhibits and Financial Statement Schedules.**

**(a) Exhibits**

<u>Exhibit Number</u>	<u>Description</u>
1.1*	Form of Underwriting Agreement.
3.1	Second Amended and Restated Certificate of Incorporation of Registrant, as currently in effect.
3.2*	Form of Third Amended and Restated Certificate of Incorporation of Registrant, to be in effect immediately prior to the completion of this offering.
3.3	Bylaws of Registrant, as amended and currently in effect.
3.4*	Form of Amended and Restated Bylaws of Registrant, to be in effect upon the effectiveness of this registration statement.
4.1*	Specimen Common Stock Certificate.
4.2	Amended and Restated Investors' Rights Agreement among the Registrant and certain of its stockholders, effective as of August 13, 2021.
5.1*	Opinion of Goodwin Procter LLP.
10.1#	2020 Equity Incentive Plan and form of award agreement thereunder.
10.2*##	2021 Stock Option and Incentive Plan and form of award agreements thereunder.

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10.3*#	2021 Employee Stock Purchase Plan.
10.4*#	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers.
10.5*#	Senior Executive Cash Incentive Bonus Plan.
10.6*#	Form of Executive Employment Agreement.
10.7*#	Non-Employee Director Compensation Policy.
10.8*#	Offer Letter, by and between the Registrant and Ivana Magovčević-Liebisch, dated July 17, 2020.
10.9*#	Offer Letter, by and between the Registrant and Richard A. Fisher, dated August 15, 2020.
10.10*#	Offer Letter, by and between the Registrant and Spyros Papapetropoulos, dated August 31, 2020.
10.11†	Exclusive License Agreement, by and between the Registrant and Amgen Inc., dated July 9, 2020.
10.12†	Master Services Agreement, by and between the Registrant and Fujifilm Diosynth Biotechnologies UK Limited, Fujifilm Diosynth Biotechnologies Texas, LLC, Fujifilm Diosynth Biotechnologies U.S.A., Inc, and Fujifilm Diosynth Biotechnologies Denmark APS, dated February 24, 2021.
10.13	Lease, by and between 100 Forge Holding LLC and the Registrant, dated as of September 20, 2021.
21.1	Subsidiaries of the Registrant.
23.1*	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm.
23.2*	Consent of Goodwin Procter LLP (included in Exhibit 5.1).
24*	Power of Attorney (included on signature page).

\* To be filed by amendment.

† Portions of this exhibit (indicated by asterisks) have been omitted pursuant to Item 601(b)(10) of Regulation S-K.

# Indicates a management contract or any compensatory plan, contract or arrangement.

**(b) Financial Statements Schedules**

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the consolidated financial statements or notes thereto.

**Item 17. Undertakings.**

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Act, may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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The Registrant hereby undertakes that:

(a) The Registrant will provide to the underwriter at the closing as specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

(b) For purposes of determining any liability under the Securities Act of 1933, as amended, the information omitted from a form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933, as amended, shall be deemed to be part of this registration statement as of the time it was declared effective.

(c) For the purpose of determining any liability under the Securities Act of 1933, as amended, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Massachusetts, on the \_\_\_\_\_ day of \_\_\_\_\_, 2021.

**VIGIL NEUROSCIENCE, INC.**

By: \_\_\_\_\_  
Name: Ivana Magovčević-Liebisch, PhD, JD  
Title: President and Chief Executive Officer

**POWER OF ATTORNEY AND SIGNATURES**

Each individual whose signature appears below hereby constitutes and appoints Ivana Magovčević-Liebisch and Jennifer Ziolkowski as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement (or any Registration Statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement and Power of Attorney has been signed by the following person in the capacities and on the date indicated.

<u>Name</u>	<u>Title</u>	<u>Date</u>
_____ Ivana Magovčević-Liebisch, PhD, JD	President and Chief Executive Officer <i>(Principal Executive Officer)</i>	, 2021
_____ Jennifer Ziolkowski, CPA	Chief Financial Officer <i>(Principal Financial Officer and Principal Accounting Officer)</i>	, 2021
_____ Bruce Booth, D.Phil	Director, Chairperson	, 2021
_____ Cheryl Renee Blanchard, PhD	Director	, 2021
_____ Shaan Gandhi, MD, PhD, MBA	Director	, 2021
_____ Gerhard Koenig, PhD	Director	, 2021
_____ Clay Bernardin Thorp	Director	, 2021
_____ Stefan Vitorovic, MS, MBA	Director	, 2021

**SECOND AMENDED AND RESTATED  
CERTIFICATE OF INCORPORATION OF  
VIGIL NEUROSCIENCE, INC.**

(Pursuant to Sections 242 and 245 of the General Corporation Law of the State of Delaware)

Vigil Neuroscience, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the “**General Corporation Law**”),

**DOES HEREBY CERTIFY:**

1. That the name of this corporation is Vigil Neuroscience, Inc., and that this corporation was originally incorporated pursuant to the General Corporation Law on June 22, 2020 under the name Vigil Neuroscience, Inc. The corporation’s Certificate of Incorporation was amended and restated by that certain amended and restated Certificate of Incorporation dated as of September 18, 2020.

2. That the Board of Directors of the Corporation (the “**Board of Directors**”) duly adopted resolutions proposing to further amend and restate the Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

**RESOLVED**, that the amended and restated Certificate of Incorporation of this corporation be further amended and restated in its entirety to read as follows:

**FIRST:** The name of this corporation is Vigil Neuroscience, Inc. (the “**Corporation**”).

**SECOND:** The address of the registered office of the Corporation in the State of Delaware is 850 New Burton Road, Suite 201, City of Dover, County of Kent, 19904. The name of its registered agent at such address is COGENCY GLOBAL INC.

**THIRD:** The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

**FOURTH:** The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 72,000,000 shares of Common Stock, \$0.0001 par value per share (“**Common Stock**”) and (ii) 54,179,688 shares of Preferred Stock, \$0.0001 par value per share (“**Preferred Stock**”).

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

## A. COMMON STOCK

**1. General.** The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein.

**2. Voting.** The holders of the Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings). Except to the extent required by applicable law, there shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of this Second Amended and Restated Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

## B. PREFERRED STOCK

28,522,592 shares of the authorized Preferred Stock of the Corporation are hereby designated “**Series A Preferred Stock**”, and 25,657,096 shares of the authorized Preferred Stock of the Corporation are hereby designated “**Series B Preferred Stock**”, each with the following rights, preferences, powers, privileges and restrictions, qualifications and limitations. Unless otherwise indicated, references to “sections” or “subsections” in this Part B of this Article Fourth refer to sections and subsections of Part B of this Article Fourth.

**1. Dividends.** The holders of then outstanding shares of Preferred Stock shall be entitled to receive on a *pari passu* basis, only when, as and if declared by the Board of Directors, out of any funds and assets legally available therefor, dividends at the rate of 8% of the Series A Original Issue Price (as defined below) for each share of Series A Preferred Stock and at the rate of 8% of the Series B Original Issue Price (as defined below) for each share of Series B Preferred Stock, prior and in preference to any declaration or payment of any other dividend (other than dividends on shares of Common Stock payable in shares of Common Stock). The right to receive dividends on shares of Preferred Stock pursuant to the preceding sentence of this Section 1 shall not be cumulative, and no right to dividends shall accrue to holders of Preferred Stock by reason of the fact that dividends on said shares are not declared. The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in this Second Amended and Restated Certificate of Incorporation) the holders of the Preferred Stock then outstanding shall first receive, or simultaneously receive, in addition to the dividends payable pursuant to the first sentence of this Section 1, a dividend on each outstanding share of Preferred Stock in an amount at least equal to (i) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of the applicable series of Preferred Stock as would equal the product of (A) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock and (B) the number of shares of Common Stock issuable upon conversion of a share of such series of Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend or (ii) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of such series of Preferred Stock determined by (A) dividing the amount of the dividend

payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (B) multiplying such fraction by an amount equal to the Original Issue Price for such series of Preferred Stock; *provided* that, if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one (1) class or series of capital stock of the Corporation, the dividend payable to the holders of such series of Preferred Stock pursuant to this Section 1 shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest Preferred Stock dividend for such series of Preferred Stock. The “**Series A Original Issue Price**” shall mean \$2.54700 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock. The “**Series B Original Issue Price**” shall mean \$3.5078 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock. The term “**Original Issue Price**” may refer to the Series A Original Issue Price and/or the Series B Original Issue Price, as the case may be.

## **2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.**

**2.1 Preferential Payments to Holders of Preferred Stock.** In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of Preferred Stock then outstanding shall be entitled on a *pari passu* basis to be paid out of the assets of the Corporation available for distribution to its stockholders, and in the event of a Deemed Liquidation Event (as defined below), the holders of shares of Preferred Stock then outstanding shall be entitled to be paid out of the consideration payable to stockholders in such Deemed Liquidation Event or out of the Available Proceeds (as defined below), as applicable, before any payment shall be made to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to the greater of (i) the applicable Original Issue Price for such series of Preferred Stock, plus any dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had all shares of such series of Preferred Stock been converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution, winding up or Deemed Liquidation Event (the amount payable pursuant to this sentence with respect to the Series A Preferred Stock is hereinafter referred to as the “**Series A Liquidation Amount**”, and with respect to the Series B Preferred Stock, the “**Series B Liquidation Amount**”). The term “**Liquidation Amount**” may refer to the Series A Liquidation Amount and/or the Series B Liquidation Amount, as the case may be. If upon any such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Preferred Stock the full amount to which they shall be entitled under this Section 2.1, the holders of shares of Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

**2.2 Payments to Holders of Common Stock.** In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, after the payment in full of all Series A Liquidation Amounts and Series B Liquidation Amounts required to be paid to the holders of shares of Series A Preferred Stock and Series B Preferred Stock, respectively, the remaining assets of the Corporation available for distribution to its stockholders or, in the



case of a Deemed Liquidation Event, the consideration not payable to the holders of shares of Preferred Stock pursuant to Section 2.1 or the remaining Available Proceeds, as the case may be, shall be distributed among the holders of shares of Common Stock, *pro rata* based on the number of shares held by each such holder, treating for this purpose all such securities as if they had been converted to Common Stock pursuant to the terms of this Second Amended and Restated Certificate of Incorporation immediately prior to such liquidation, dissolution or winding up of the Corporation..

### 2.3 Deemed Liquidation Events.

**2.3.1 Definition.** Each of the following events shall be considered a “**Deemed Liquidation Event**” unless the holders of a majority of the outstanding shares of Preferred Stock, voting together as a single class on an as-converted to Common Stock basis (the “**Requisite Holders**”) elect otherwise by written notice sent to the Corporation at least 10 days prior to the effective date of any such event:

(a) a merger or consolidation in which

(i) the Corporation is a constituent party or

(ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation, except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of the surviving or resulting corporation; or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation; or

(b) (1) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or (2) the sale or disposition (whether by merger, consolidation or otherwise, and whether in a single transaction or a series of related transactions) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation.

### 2.3.2 Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event referred to in Section 2.3.1(a)(i) unless the agreement or plan of merger or consolidation for such transaction (the “**Merger Agreement**”) provides that the consideration payable to the stockholders of the Corporation in such Deemed Liquidation Event shall be paid to the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2.

(b) In the event of a Deemed Liquidation Event referred to in Section 2.3.1(a)(ii) or 2.3.1(b), if the Corporation does not effect a dissolution of the Corporation under the General Corporation Law within 30 days after such Deemed Liquidation Event, then (i) the Corporation shall send a written notice to each holder of Preferred Stock no later than the 30th day after the Deemed Liquidation Event advising such holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause (ii) to require the redemption of such shares of Preferred Stock, and (ii) unless the Requisite Holders request otherwise in a written instrument delivered to the Corporation, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors), together with any other assets of the Corporation available for distribution to its stockholders, all to the extent permitted by Delaware law governing distributions to stockholders (the “**Available Proceeds**”), on the 60th day after such Deemed Liquidation Event (the “**Redemption Date**”), to redeem all outstanding shares of Preferred Stock at a price per share equal to the Liquidation Amount for such series of Preferred Stock. Notwithstanding the foregoing, in the event of a redemption pursuant to the preceding sentence, if the Available Proceeds are not sufficient to redeem all outstanding shares of Preferred Stock, the Corporation shall redeem on a pari passu basis a pro rata portion of each holder’s shares of Preferred Stock to the fullest extent of such Available Proceeds, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the Available Proceeds were sufficient to redeem all such shares, and shall redeem the remaining shares as soon as it may lawfully do so under Delaware law governing distributions to stockholders. Prior to the distribution or redemption provided for in this Section 2.3.2(b), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in connection with such Deemed Liquidation Event or in the ordinary course of business.

(c) Unless the Requisite Holders request otherwise pursuant to Subsection 2.3.2(b)(iii) above the Corporation shall send written notice of the mandatory redemption (the “**Redemption Notice**”) to each holder of record of Preferred Stock not less than thirty (30) days prior to the Redemption Date, which Redemption Notices shall state: (i) the number and series of shares of Preferred Stock held by the holder that the Corporation shall redeem on the Redemption Date specified in the Redemption Notice; (ii) the Redemption Date and the redemption price; (iii) the date upon which the holder’s right to convert such shares terminates; and (iv) for holders of shares in certificated form, that the holder is to surrender to the Corporation, in the manner and at the place designated, his, her or its certificate or certificates representing the shares of Preferred Stock to be redeemed.

(d) On or before the applicable Redemption Date, each holder of shares of Preferred Stock to be redeemed on such Redemption Date, unless such holder has exercised his, her or its right to convert such shares as provided in Section 4, shall, if a holder of shares in certificated form, surrender the certificate or certificates representing such shares (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon the portion of Available Proceeds applicable for such shares shall be payable to the order of the person or entity whose name appears on such certificate or certificates as the owner thereof. In the event less than all of the shares of Preferred Stock represented by a certificate are redeemed, a new certificate representing the unredeemed shares of such Preferred Stock shall promptly be issued to such holder or a new book entry shall be made representing the unredeemed shares of such Preferred Stock, as applicable.

(e) If the Redemption Notice shall have been duly given, and if on the applicable Redemption Date the portion of Available Proceeds payable upon redemption of the shares of Preferred Stock to be redeemed on such Redemption Date is paid or tendered for payment or deposited with an independent payment agent so as to be available therefor in a timely manner, then notwithstanding that any certificates evidencing any of the shares of Preferred Stock so called for redemption shall not have been surrendered, all rights with respect to such shares shall forthwith after the Redemption Date terminate, except only the right of the holders to receive the portion of Available Proceeds applicable to such holders' shares of Preferred Stock, without interest upon surrender of any such certificate or certificates therefor.

**2.3.3 Amount Deemed Paid or Distributed.** The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such merger, consolidation, sale, transfer, exclusive license, other disposition or redemption shall be the cash or the value of the property, rights or securities to be paid or distributed to such holders pursuant to such Deemed Liquidation Event. The value of such property, rights or securities shall be determined in good faith by the Board of Directors.

**2.3.4 Allocation of Escrow and Contingent Consideration.** In the event of a Deemed Liquidation Event pursuant to Section 2.3.1(a)(i), if any portion of the consideration payable to the stockholders of the Corporation is payable only upon satisfaction of contingencies (the "**Additional Consideration**"), the Merger Agreement shall provide that (a) the portion of such consideration that is not Additional Consideration (such portion, the "**Initial Consideration**") shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2 as if the Initial Consideration were the only consideration payable in connection with such Deemed Liquidation Event; and (b) any Additional Consideration which becomes payable to the stockholders of the Corporation upon satisfaction of such contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2 after taking into account the previous payment of the Initial Consideration as part of the same transaction. For the purposes of this Section 2.3.4, consideration placed into escrow or retained as a holdback to be available for satisfaction of indemnification or similar obligations in connection with such Deemed Liquidation Event shall be deemed to be Additional Consideration.

### **3. Voting.**

**3.1 General.** On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of this Second Amended and Restated Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class and on an as-converted to Common Stock basis.

**3.2 Election of Directors.** The holders of record of the shares of Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect three directors of the Corporation (the "**Series A Directors**"). The holders of record of the shares of Series B Preferred Stock, exclusively and as a separate class, shall be entitled to elect one director of the Corporation (the "**Series B Director**"), and together with the Series A Directors, the "**Preferred Directors**"). Any directors elected as provided in the preceding two sentences may be removed without cause

by, and only by, the affirmative vote of the holders of the shares of the class or series of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. If the holders of shares of Series A Preferred Stock or Series B Preferred Stock, as the case may be, fail to elect a sufficient number of directors to fill all directorships for which they are entitled to elect directors, voting exclusively and as a separate class, pursuant to the first and second sentences of this Section 3.2, then any directorship not so filled shall remain vacant until such time as the holders of the Series A Preferred Stock or Series B Preferred Stock, as the case may be, elect a person to fill such directorship by vote or written consent in lieu of a meeting; and no such directorship may be filled by the Board of Directors or the stockholders of the Corporation (other than by the stockholders of the Corporation that are entitled to elect a person to fill such directorship, voting exclusively and as a separate class). The holders of record of the shares of Common Stock and of any other class or series of voting stock (including the Preferred Stock), exclusively and voting together as a single class on an as-converted to Common Stock basis, shall be entitled to elect the balance of the total number of directors of the Corporation. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. Except as otherwise provided in this Section 3.2, a vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Section 3.2. The rights of the holders of the Series A Preferred Stock under the first sentence of this Section 3.2 shall terminate on the first date following the Original Issue Date (as defined below) on which there are issued and outstanding less than 4,500,000 shares of Series A Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Series A Preferred Stock). The rights of the holders of the Series B Preferred Stock under the second sentence of this Section 3.2 shall terminate on the first date following the Original Issue Date on which there are issued and outstanding less than 3,848,564 shares of Series B Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Series B Preferred Stock).

**3.3 Preferred Stock Protective Provisions.** At any time when at least 8,126,953 shares of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Preferred Stock) are outstanding, the Corporation shall not (and the Corporation's subsidiaries shall not), either directly or indirectly by amendment, merger, consolidation, recapitalization, reclassification or otherwise, do any of the following without (in addition to any other vote required by law or this Second Amended and Restated Certificate of Incorporation) the written consent or affirmative vote of the Requisite Holders given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and any such act or transaction entered into without such consent or vote shall be null and void *ab initio*, and of no force or effect:

(a) liquidate, dissolve or wind-up the business and affairs of the Corporation, effect any merger or consolidation or any other Deemed Liquidation Event including any merger, acquisition, business combination or similar transaction with a special purpose acquisition company or its subsidiary or affiliate, or consent to any of the foregoing;

(b) amend, alter or repeal any provision of this Second Amended and Restated Certificate of Incorporation or Bylaws of the Corporation, including, without limitation, any amendment to increase the number of authorized shares of Common Stock or Preferred Stock (or any series thereof);

(c) create, or authorize the creation of, or issue or obligate itself to issue shares of, any additional class or series of capital stock or issue any other security convertible into or exercisable for any equity security, unless the same ranks junior to the Preferred Stock with respect to its rights, preferences and privileges, or increase the authorized number of shares of Preferred Stock, or increase the authorized number of shares of any additional class or series of capital stock of the Corporation unless the same ranks junior to the Preferred Stock with respect to its rights, preferences and privileges;

(d) (i) reclassify, alter or amend any existing security of the Corporation that is *pari passu* with the Preferred Stock in respect of with respect to its rights, preferences and privileges, if such reclassification, alteration or amendment would render such other security senior to the Preferred Stock in respect of any such right, preference, or privilege or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Preferred Stock with respect to its rights, preferences and privileges, if such reclassification, alteration or amendment would render such other security senior to or *pari passu* with the Preferred Stock in respect of any such right, preference or privilege;

(e) purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of or dividends or distributions on the Preferred Stock as expressly authorized herein, or (ii) repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price thereof or the current fair market value, as approved by the Board of Directors, including the approval of at least three (3) of the four (4) Preferred Directors (the “**Requisite Preferred Directors**”);

(f) create, or hold capital stock in, any subsidiary that is not wholly owned (either directly or through one or more other subsidiaries) by the Corporation, or permit any subsidiary to create, or authorize the creation of, or issue or obligate itself to issue, any shares of any class or series of capital stock, or sell, transfer or otherwise dispose of any capital stock of any direct or indirect subsidiary of the Corporation, or permit any direct or indirect subsidiary to sell, lease, transfer, exclusively license or otherwise dispose (in a single transaction or series of related transactions) of all or substantially all of the assets of such subsidiary;

(g) increase or decrease the authorized number of directors constituting the Board of Directors, change the number of votes entitled to be cast by any director or directors on any matter, or adopt any provision inconsistent with Article Sixth;

(h) increase the number of shares authorized for issuance under any existing equity incentive plan or create any new equity incentive plan such that the aggregate number of shares authorized for issuance under all such equity incentive plans exceeds 9,389,281 (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock);

(i) otherwise enter into or be a party to any transaction with any director, officer, stockholder or member of senior management (i.e. SVP and above) of the Corporation or any “associate” (as defined in Rule 12b-2 promulgated under the Exchange Act) of any such Person, including without limitation any “management bonus” or similar plan providing payments to officers and senior management in connection with a Deemed Liquidation Event, except for employment-related agreement and benefits and arms’ length agreements upon reasonable terms that are approved by a majority of the Board of Directors, including the Requisite Preferred Directors;

(j) change the principal business of the Corporation, enter new lines of business, or exit the current line of business;

(k) create, or authorize the creation of, or issue, or authorize the issuance of any debt security or create any lien or security interest (except for purchase money liens or statutory liens of landlords, mechanics, materialmen, workmen, warehousemen and other similar persons arising or incurred in the ordinary course of business) or incur other indebtedness for borrowed money, including but not limited to obligations and contingent obligations under guarantees, or permit any subsidiary to take any such action with respect to any debt security lien, security interest or other indebtedness for borrowed money, if the aggregate indebtedness of the Corporation and its subsidiaries for borrowed money following such action would exceed \$1,000,000, unless such debt security has received the prior approval of the Board of Directors, including the Requisite Preferred Directors;

(l) enter into any corporate strategic relationship involving the payment, contribution, or assignment by the Corporation (or any subsidiary thereof) or to the Corporation (or any subsidiary thereof) of money or assets with a fair market value greater than \$1,000,000;

(m) sell, assign, license, pledge, or encumber material technology or intellectual property of the Corporation (or any of its subsidiaries), or enter into or grant any royalty streams related thereto, other than licenses granted in the ordinary course of business;

(n) amend, waive, alter or appeal this Section 3.3; or

(o) cause or permit any of its subsidiaries to take any action with respect to the foregoing without the written consent or affirmative vote of the Requisite Holders.

**4. Optional Conversion.** The holders of the Preferred Stock shall have conversion rights as follows (the “**Conversion Rights**”):

**4.1 Right to Convert.**

**4.1.1 Conversion Ratio.** Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and non-assessable shares of Common Stock as is determined by dividing the Original Issue Price for such series of Preferred Stock by the Conversion Price for such series of Preferred Stock in effect at the time of conversion; provided that such holder may waive such option to convert pursuant to this

Section 4.1.1 upon written notice to the Company. The “**Series A Conversion Price**” shall initially be equal to the Series A Original Issue Price. Such initial Series A Conversion Price, and the rate at which shares of Series A Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below. The “**Series B Conversion Price**” shall initially be equal to the Series B Original Issue Price. Such initial Series B Conversion Price, and the rate at which shares of Series B Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below. The term “**Conversion Price**” may refer to the Series A Conversion Price and/or the Series B Conversion Price, as the case may be.

**4.1.2 Termination of Conversion Rights.** In the event of a liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Preferred Stock; provided that the foregoing termination of Conversion Rights shall not affect the amount(s) otherwise paid or payable in accordance with Section 2.1 to holders of Preferred Stock pursuant to such liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event.

**4.2 Fractional Shares.** No fractional shares of Common Stock shall be issued upon conversion of the Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the number of shares of Common Stock to be issued upon conversion of the Preferred Stock shall be rounded to the nearest whole share.

#### **4.3 Mechanics of Conversion.**

**4.3.1 Notice of Conversion.** In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall (a) provide written notice to the Corporation’s transfer agent at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent) that such holder elects to convert all or any number of such holder’s shares of Preferred Stock and, if applicable, any event on which such conversion is contingent and (b), if such holder’s shares are certificated, surrender the certificate or certificates for such shares of Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent). Such notice shall state such holder’s name or the names of the nominees in which such holder wishes the shares of Common Stock to be issued. If required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such notice and, if applicable, certificates (or lost certificate affidavit and agreement) shall be the time of conversion (the “**Conversion Time**”), and the shares of Common Stock issuable upon conversion of the specified shares shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time (i) issue and deliver to such holder of Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of full

shares of Common Stock issuable upon such conversion in accordance with the provisions hereof and a certificate for the number (if any) of the shares of Preferred Stock represented by the surrendered certificate that were not converted into Common Stock, and (ii) pay all declared but unpaid dividends on the shares of Preferred Stock converted.

**4.3.2 Reservation of Shares.** The Corporation shall at all times when the Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Second Amended and Restated Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the Conversion Price for a series of Preferred Stock below the then par value of the shares of Common Stock issuable upon conversion of such series of Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and non-assessable shares of Common Stock at such adjusted Conversion Price.

**4.3.3 Effect of Conversion.** All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor and to receive payment of any dividends declared but unpaid thereon. Any shares of Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action regardless of the provisions of Section 3.3 above) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

**4.3.4 No Further Adjustment.** Upon any such conversion, no adjustment to the Conversion Price for a series of Preferred Stock shall be made for any declared but unpaid dividends on such series of Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

**4.3.5 Taxes.** The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.



#### 4.4 Adjustments to Conversion Price for Diluting Issues.

4.4.1 **Special Definitions.** For purposes of this Article Fourth, the following definitions shall apply:

- Securities.
- (a) “**Option**” shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.
  - (b) “**Original Issue Date**” shall mean the date on which the first share of Series B Preferred Stock was issued.
  - (c) “**Convertible Securities**” shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.
  - (d) “**Additional Shares of Common Stock**” shall mean all shares of Common Stock issued (or, pursuant to Section 4.4.3 below, deemed to be issued) by the Corporation after the Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, “**Exempted Securities**”):
    - (i) as to any series of Preferred Stock, shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on such series of Preferred Stock;
    - (ii) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Sections 4.5, 4.6, 4.7 or 4.8;
    - (iii) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors, including the approval of at least two (2) Series A Directors and one (1) Series B Director;
    - (iv) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;
    - (v) shares of Common Stock, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board of Directors, including the approval of at least two (2) Series A Directors and one (1) Series B Director;
    - (vi) shares of Common Stock, Options or Convertible Securities issued to suppliers or third party service providers as consideration for the provision of goods or services pursuant to transactions approved by the Board of Directors, including the approval of at least two (2) Series A Directors and one (1) Series B Director;

(vii) shares of Common Stock, Options or Convertible Securities issued as acquisition consideration pursuant to the acquisition of another corporation by the Corporation by merger, purchase of substantially all of the assets or other reorganization or to a joint venture agreement, *provided* that such issuances are approved by the Board of Directors, including the approval of at least two (2) Series A Directors and one (1) Series B Director; or

(viii) shares of Common Stock, Options or Convertible Securities issued in connection with sponsored research, collaboration, technology license, development, original equipment manufacturing, marketing or other similar agreements or strategic partnerships approved by the Board of Directors, including the approval of at least two (2) Series A Directors and one (1) Series B Director.

**4.4.2 No Adjustment of Conversion Price.** No adjustment in the Series A Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from a majority of the outstanding Series A Preferred Stock agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock. No adjustment in the Series B Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from a majority of the outstanding Series B Preferred Stock agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

**4.4.3 Deemed Issue of Additional Shares of Common Stock.**

(a) If the Corporation at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Conversion Price for a series of Preferred Stock pursuant to the terms of Section 4.4.4, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Conversion Price for such series of Preferred Stock computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing the Conversion Price for such series of Preferred Stock to an amount which exceeds the lower of (i) the Conversion Price for such series of Preferred Stock in effect immediately prior to the original adjustment made as a

result of the issuance of such Option or Convertible Security, or (ii) the Conversion Price for such series of Preferred Stock that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Conversion Price for a series of Preferred Stock pursuant to the terms of Section 4.4.4 (either because the consideration per share (determined pursuant to Section 4.4.5) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Conversion Price for such series of Preferred Stock then in effect, or because such Option or Convertible Security was issued before the Original Issue Date), are revised after the Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Section 4.4.3(a)) shall be deemed to have been issued effective upon such increase or decrease becoming effective).

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Conversion Price for a series of Preferred Stock pursuant to the terms of Section 4.4.4, the Conversion Price for such series of Preferred Stock shall be readjusted to such Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Conversion Price for a series of Preferred Stock provided for in this Section 4.4.3 shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Section 4.4.3). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Conversion Price for a series of Preferred Stock that would result under the terms of this Section 4.4.3 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

**4.4.4 Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock.** In the event the Corporation shall at any time after the Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 4.4.3), without consideration or for a consideration per share less than the applicable Conversion Price in effect immediately prior to such issuance or deemed issuance, then such Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A+B) / (A+C)$$

For purposes of the foregoing formula, the following definitions shall apply:

- (a) “**CP<sub>2</sub>**” shall mean the Conversion Price in effect immediately after such issuance or deemed issuance of Additional Shares of Common Stock
- (b) “**CP<sub>1</sub>**” shall mean the Conversion Price in effect immediately prior to such issuance or deemed issuance of Additional Shares of Common Stock;
- (c) “**A**” shall mean the number of shares of Common Stock outstanding immediately prior to such issuance or deemed issuance of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issuance or deemed issuance or upon conversion or exchange of Convertible Securities (including the Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);
- (d) “**B**” shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued or deemed issued at a price per share equal to CP<sub>1</sub> (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP<sub>1</sub>); and
- (e) “**C**” shall mean the number of such Additional Shares of Common Stock issued in such transaction.

**4.4.5 Determination of Consideration.** For purposes of this Section 4.4, the consideration received by the Corporation for the issuance or deemed issuance of any Additional Shares of Common Stock shall be computed as follows:

- (a) **Cash and Property.** Such consideration shall:
  - (i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;
  - (ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors; and
  - (iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board of Directors.

(b) **Options and Convertible Securities.** The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 4.4.3, relating to Options and Convertible Securities, shall be determined by dividing:

(i) The total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

**4.4.6 Multiple Closing Dates.** In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Conversion Price for a series of Preferred Stock pursuant to the terms of Section 4.4.4, and such issuance dates occur within a period of no more than ninety (90) days from the first such issuances to the final such issuance, then, upon the final such issuance, the Conversion Price for such series of Preferred Stock shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

**4.5 Adjustment for Stock Splits and Combinations.** If the Corporation shall at any time or from time to time after the Original Issue Date effect a subdivision of the outstanding Common Stock, the Conversion Price for a series of Preferred Stock in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the Conversion Price for a series of Preferred Stock in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

**4.6 Adjustment for Certain Dividends and Distributions.** In the event the Corporation at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the Conversion Price for a series of Preferred Stock in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Conversion Price for such series of Preferred Stock then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Conversion Price for such series of Preferred Stock shall be recomputed accordingly as of the close of business on such record date and thereafter such Conversion Price shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and (b) no such adjustment shall be made if the holders of Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

**4.7 Adjustments for Other Dividends and Distributions.** In the event the Corporation at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

**4.8 Adjustment for Merger or Reorganization, etc.** Subject to the provisions of Section 2.3, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Section 4.4, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Preferred Stock shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of such Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such

transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of such series of Preferred Stock, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the such Preferred Stock.

**4.9 Certificate as to Adjustments.** Upon the occurrence of each adjustment or readjustment of the Conversion Price for a series of Preferred Stock pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than 10 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of such series of Preferred Stock a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the such series of Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of such series of Preferred Stock (but in any event not later than 10 days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Conversion Price then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of such series of Preferred Stock.

**4.10 Notice of Record Date.** In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or

(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(c) of the voluntary or involuntary dissolution, liquidation or winding up of the Corporation, then, and in each such case, the Corporation will send or cause to be sent to the holders of the Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Preferred Stock and the Common Stock. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

## 5. Mandatory Conversion.

**5.1 Trigger Events.** Upon either (a) the closing of the sale of shares of Common Stock to the public at a price per share of at least three times (3x) the Series A Original Issue Price (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least \$50,000,000 of proceeds, net of the underwriting discount and commissions, to the Corporation (a “**Qualified IPO**”), or (b) the date and time, or the occurrence of an event, specified by vote or written consent of the Requisite Holders (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the “**Mandatory Conversion Time**”), then (i) all outstanding shares of Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective conversion rate as calculated pursuant to Section 4.1.1 and (ii) such shares may not be reissued by the Corporation.

**5.2 Procedural Requirements.** All holders of record of shares of Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Preferred Stock in certificated form shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Preferred Stock converted pursuant to Section 5.1, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the Mandatory Conversion Time (notwithstanding the failure of the holder or holders thereof to surrender any certificates at or prior to such time), except only the rights of the holders thereof, upon surrender of any certificate or certificates of such holders (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the next sentence of this Section 5.2. As soon as practicable after the Mandatory Conversion Time and, if applicable, the surrender of any certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock, the Corporation shall (a) issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and (b) pay any declared but unpaid dividends on the shares of Preferred Stock converted. Such converted Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

**6. Redemption.** Other than as set forth in Section 2.3.2(b), the Preferred Stock is not redeemable at the option of the holder or the Corporation.

**7. Redeemed or Otherwise Acquired Shares.** Any shares of Preferred Stock that are redeemed or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Preferred Stock following redemption, conversion or acquisition.



**8. Waiver.** Except as otherwise set forth herein or to the extent a separate class or series vote is required by applicable law, any of the rights, powers, preferences and other terms of the Preferred Stock set forth herein may be waived on behalf of all holders of Preferred Stock by the affirmative written consent or vote of the Requisite Holders (provided that such waiver of rights, powers, preference and/or other terms affects each series of Preferred Stock in the same manner); *provided* that a waiver of any provision expressly requiring the affirmative written consent or vote of a class or series of stock shall be waived by the affirmative written consent or vote of such class or series of stock.

**9. Notices.** Any notice required or permitted by the provisions of this Article Fourth to be given to a holder of shares of Preferred Stock shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law, and shall be deemed sent upon such mailing or electronic transmission.

**FIFTH:** Subject to any additional vote required by this Second Amended and Restated Certificate of Incorporation or Bylaws, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

**SIXTH:** Subject to any additional vote required by this Second Amended and Restated Certificate of Incorporation, the number of directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation.

**SEVENTH:** Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

**EIGHTH:** Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

**NINTH:** To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article Ninth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any repeal or modification of the foregoing provisions of this Article Ninth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

**TENTH:** The following indemnification provisions shall apply to the persons enumerated below.

**1. Right to Indemnification of Directors and Officers.** The Corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (an “**Indemnified Person**”) who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a “**Proceeding**”), by reason of the fact that such person, or a person for whom such person is the legal representative, is or was a director or officer of the Corporation or, while a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, limited liability company, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys’ fees) reasonably incurred by such Indemnified Person in such Proceeding. Notwithstanding the preceding sentence, except as otherwise provided in Section 3 of this Article Tenth the Corporation shall be required to indemnify an Indemnified Person in connection with a Proceeding (or part thereof) commenced by such Indemnified Person only if the commencement of such Proceeding (or part thereof) by the Indemnified Person was authorized in advance by the Board of Directors.

**2. Prepayment of Expenses of Directors and Officers.** The Corporation shall pay the expenses (including attorneys’ fees) incurred by an Indemnified Person in defending any Proceeding in advance of its final disposition, *provided, however,* that, to the extent required by law, such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the Indemnified Person to repay all amounts advanced if it should be ultimately determined that the Indemnified Person is not entitled to be indemnified under this Article Tenth or otherwise.

**3. Claims by Directors and Officers.** If a claim for indemnification or advancement of expenses under this Article Tenth is not paid in full within 30 days after a written claim therefor by the Indemnified Person has been received by the Corporation, the Indemnified Person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such action the Corporation shall have the burden of proving that the Indemnified Person is not entitled to the requested indemnification or advancement of expenses under applicable law.

**4. Indemnification of Employees and Agents.** The Corporation may indemnify and advance expenses to any person who was or is made or is threatened to be made or is otherwise involved in any Proceeding by reason of the fact that such person, or a person for whom such person is the legal representative, is or was an employee or agent of the Corporation or, while an employee or agent of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, limited liability company, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys’ fees) reasonably incurred by such person in connection with such Proceeding. The ultimate determination of entitlement to indemnification of persons who are non-director or officer employees or agents shall be made in such manner as is determined by the Board of Directors in its sole discretion. Notwithstanding the foregoing sentence, the Corporation shall not be required to indemnify a person in connection with a Proceeding initiated by such person if the Proceeding was not authorized in advance by the Board of Directors.

**5. Advancement of Expenses of Employees and Agents.** The Corporation may pay the expenses (including attorneys’ fees) incurred by an employee or agent in defending any Proceeding in advance of its final disposition on such terms and conditions as may be determined by the Board of Directors.

**6. Non-Exclusivity of Rights.** The rights conferred on any person by this Article Tenth shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of this Second Amended and Restated Certificate of Incorporation, the Bylaws of the Corporation, or any agreement, or pursuant to any vote of stockholders or disinterested directors or otherwise.

**7. Other Indemnification.** The Corporation's obligation, if any, to indemnify any person who was or is serving at its request as a director, officer or employee of another Corporation, partnership, limited liability company, joint venture, trust, organization or other enterprise shall be reduced by any amount such person may collect as indemnification from such other Corporation, partnership, limited liability company, joint venture, trust, organization or other enterprise.

**8. Insurance.** The Board of Directors may, to the full extent permitted by applicable law as it presently exists, or may hereafter be amended from time to time, authorize an appropriate officer or officers to purchase and maintain at the Corporation's expense insurance: (a) to indemnify the Corporation for any obligation which it incurs as a result of the indemnification of directors, officers and employees under the provisions of this Article Tenth; and (b) to indemnify or insure directors, officers and employees against liability in instances in which they may not otherwise be indemnified by the Corporation under the provisions of this Article Tenth.

**9. Amendment or Repeal.** Any repeal or modification of the foregoing provisions of this Article Tenth shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification. The rights provided hereunder shall inure to the benefit of any Indemnified Person and such person's heirs, executors and administrators.

**ELEVENTH:** The Corporation renounces, to the fullest extent permitted by law, any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An "**Excluded Opportunity**" is any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of (i) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries, or (ii) any holder of Preferred Stock or any partner, member, director, stockholder, employee, affiliate or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, the persons referred to in clauses (i) and (ii) are "**Covered Persons**"), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Corporation. Any repeal or modification of this Article Eleventh will only be prospective and will not affect the rights under this Article Eleventh in effect at the time of the occurrence of any actions or omissions to act giving rise to liability. Notwithstanding anything to the contrary contained elsewhere in this Second Amended and Restated Certificate of Incorporation, the affirmative vote of the Requisite Holders will be required to amend or repeal, or to adopt any provisions inconsistent with this Article Eleventh.

**TWELFTH:** Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim against the

Corporation, its directors, officers or employees arising pursuant to any provision of the Delaware General Corporation Law or the Corporation's certificate of incorporation or bylaws or (iv) any action asserting a claim against the Corporation, its directors, officers or employees governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within 10 days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Article Twelfth shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article Twelfth (including, without limitation, each portion of any sentence of this Article Twelfth containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

\* \* \*

3. That the foregoing further amendment and restatement was approved by the holders of the requisite number of shares of this Corporation in accordance with Section 228 of the General Corporation Law.

4. That this Second Amended and Restated Certificate of Incorporation, which restates and further amends the provisions of this Corporation's Amended and Restated Certificate of Incorporation, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

**[Remainder of Page Intentionally Left Blank]**

This Second Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of the Corporation on August 12, 2021.

By: /s/ Ivana Magovcevic-Liebisch

Ivana Magovcevic-Liebisch,  
Executive Officer Chief

*Signature Page to Second Amended and Restated Certificate of Incorporation of Vigil Neuroscience, Inc.*

FIRST AMENDMENT TO THE  
BYLAWS  
OF  
VIGIL NEUROSCIENCE, INC.

The Bylaws of Vigil Neuroscience, Inc., effective as of June 22, 2020, (the “Bylaws”), are hereby amended as follows:

Article 37 section (f) of the Bylaws is hereby deleted in its entirety and replaced with the following:

(f) Anything to the contrary contained herein notwithstanding, the following transactions are exempt from the right of first refusal contained in this Section 37:

(1) A stockholder’s Transfer of any or all shares held either during such stockholder’s lifetime or on death by will or intestacy to such stockholder’s immediate family or to any custodian or trustee for the account of such stockholder or such stockholder’s immediate family or to any limited partnership or limited liability company of which the stockholder, members of such stockholder’s immediate family or any trust for the account of such stockholder or such stockholder’s immediate family will be the general or limited partner(s) of such partnership or the controlling member(s) of such limited liability company. “Immediate family” as used herein means spouse, lineal descendant, father, mother, brother, or sister of the stockholder making such Transfer;

(2) A stockholder’s bona fide pledge or mortgage of any shares with a commercial lending institution, provided that any subsequent Transfer of said shares by said institution will be conducted in the manner set forth in this Section 37;

(3) A stockholder’s Transfer of any or all of such stockholder’s shares to the corporation or to any other stockholder of the corporation;

(4) A stockholder’s Transfer of any or all of such stockholder’s shares to a person who, at the time of such Transfer, is an officer or director of the corporation;

(5) A corporate stockholder’s Transfer of any or all of its shares pursuant to and in accordance with the terms of any merger, consolidation, reclassification of shares or capital reorganization of the corporate stockholder, or pursuant to a sale of all or substantially all of the stock or assets of a corporate stockholder;

(6) A corporate stockholder’s Transfer of any or all of its shares to any or all of its stockholders;

(7) A Transfer by a stockholder that is a limited or general partnership to any or all of its partners or former partners in accordance with partnership interests; or

(8) A stockholder’s Transfer of shares of Preferred Stock of the Company (the “Preferred Stock”), or Common Stock of the Company (“Common Stock”) issued upon a conversion of shares of Preferred Stock.

Adopted and effective as of August 13, 2021

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**BYLAWS**  
**OF**  
**VIGIL NEUROSCIENCE, INC.**  
**(A DELAWARE CORPORATION)**

## ARTICLE I

### OFFICES

**Section 1. Registered Office.** The registered office of the corporation in the State of Delaware is 850 New Burton Road, Suite 201, City of Dover, County of Kent, 19904 or in such other location as the Board of Directors of the corporation (the “*Board of Directors*”) may from time to time determine or the business of the corporation may require.

**Section 2. Other Offices.** The corporation will also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware, as the Board of Directors may from time to time determine or the business of the corporation may require.

## ARTICLE II

### CORPORATE SEAL

**Section 3. Corporate Seal.** The Board of Directors may adopt a corporate seal. Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

## ARTICLE III

### STOCKHOLDERS’ MEETINGS

**Section 4. Place of Meetings.** Meetings of the stockholders of the corporation may be held at such place, either within or without the State of Delaware, as may be determined from time to time by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting will not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law (the “*DGCL*”).

#### **Section 5. Annual Meeting.**

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may lawfully come before it, will be held on such date and at such time as may be designated from time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation’s notice of meeting of stockholders; (ii) by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving of notice provided for in the following paragraph, who is entitled to vote at the meeting and who complied with the notice procedures set forth in this Section.



(b) At an annual meeting of the stockholders, only such business will be conducted as has been properly brought before the meeting. For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of paragraph (a) of this Section, (i) the stockholder must have given timely notice thereof in writing to the Secretary of the corporation, (ii) such other business must be a proper matter for stockholder action under the DGCL and applicable law, (iii) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the corporation with a Solicitation Notice (as defined in this paragraph), such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and form of proxy to holders of at least the percentage of the corporation's voting shares required under applicable law to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the corporation's voting shares reasonably believed by such stockholder or beneficial owner to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice, and (iv) if no Solicitation Notice relating thereto has been timely provided pursuant to this Section, the stockholder or beneficial owner proposing such business or nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this Section. To be timely, a stockholder's notice will be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the 90<sup>th</sup> day nor earlier than the close of business on the 120<sup>th</sup> day prior to the first anniversary of the preceding year's annual meeting; *provided, however*, that in the event that the date of the annual meeting is advanced more than 30 days prior to or delayed by more than 30 days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the 120<sup>th</sup> day prior to such annual meeting and not later than the close of business on the later of the 90<sup>th</sup> day prior to such annual meeting or the 10<sup>th</sup> day following the day on which public announcement of the date of such meeting is first made. In no event will the public announcement of an adjournment of an annual meeting commence a new time period for the giving of a stockholder's notice as described above. Such stockholder's notice will set forth: (A) as to each person whom the stockholder proposed to nominate for election or reelection as a director all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "**1934 Act**"), and Rule 14a-4(d) thereunder (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (C) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (ii) the class and number of shares of the corporation that are owned beneficially and of record by such stockholder and such beneficial owner, and (iii) whether either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of the proposal, at least the percentage of the corporation's voting shares required under applicable law to carry the proposal or, in the case of a nomination or nominations, a sufficient number of holders of the corporation's voting shares to elect such nominee or nominees (an affirmative statement of such intent, a "**Solicitation Notice**").

(c) Notwithstanding anything in the second sentence of paragraph (b) of this Section to the contrary, in the event that the number of directors to be elected to the Board of Directors of the corporation is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the corporation at least 100 days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section will also be considered timely, but only with respect to nominees for any new positions created by such increase, if it is delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the 10th day following the day on which such public announcement is first made by the corporation.

(d) Only such persons who are nominated in accordance with the procedures set forth in this Section (or elected or appointed pursuant to Article IV of these Bylaws) will be eligible to serve as directors and only such business will be conducted at a meeting of stockholders as has been brought before the meeting in accordance with the procedures set forth in this Section. Except as otherwise provided by law, the chair of the meeting will have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, to declare that such defective proposal or nomination will not be presented for stockholder action at the meeting and will be disregarded.

(e) Notwithstanding the foregoing provisions of this Section, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, stockholders must provide notice as required by the regulations promulgated under the 1934 Act. Nothing in these Bylaws is deemed to affect any rights of stockholders to request inclusion of proposals in the corporation proxy statement pursuant to Rule 14a-8 under the 1934 Act.

(f) For purposes of this Section, "public announcement" means disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission (the "SEC") pursuant to Section 13, 14 or 15(d) of the 1934 Act.

#### **Section 6. Special Meetings.**

(a) Special meetings of the stockholders of the corporation may be called, for any purpose or purposes, by (i) the Chair of the Board of Directors, (ii) the Chief Executive Officer, (iii) the Board of Directors pursuant to a resolution adopted by directors representing a quorum of the directors then serving on the Board of Directors or (iv) by the holders of shares entitled to cast not less than 20% of the votes at the meeting, and will be held at such place, on such date, and at such time as the Board of Directors will fix.

(b) If a special meeting is properly called by any person or persons other than the Board of Directors, the request must be in writing, specifying the general nature of the business proposed to be transacted, and must be delivered personally or sent by certified or registered mail, return receipt requested, or by telegraphic or other facsimile transmission to the

Chair of the Board of Directors, the Chief Executive Officer, or the Secretary of the corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The Board of Directors will determine the time and place of such special meeting, which will be held not less than 35 nor more than 120 days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the officer receiving the request will cause notice to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. Nothing contained in this paragraph (b) is to be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board of Directors may be held.

**Section 7. Notice of Meetings.** Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders will be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour, in the case of special meetings, the purpose or purposes of the meeting, and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at any such meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. Notice of the time, place, if any, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his or her attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting will be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

**Section 8. Quorum.** At all meetings of stockholders, except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, the presence, in person, by remote communication, if applicable, or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote will constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chair of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business will be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of a majority of shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the subject matter will be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors will be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or classes or series, present in person, by remote communication, if applicable, or

represented by proxy duly authorized, will constitute a quorum entitled to take action with respect to that vote on that matter. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of shares of such class or classes or series present in person, by remote communication, if applicable, or represented by proxy at the meeting will be the act of such class or classes or series.

**Section 9. Adjournment and Notice of Adjourned Meetings.** Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chair of the meeting or by the vote of a majority of the shares present in person, by remote communication, if applicable, or represented by proxy. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business that might have been transacted at the original meeting pursuant to the Certificate of Incorporation, these Bylaws or applicable law. If the adjournment is for more than 30 days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting will be given to each stockholder of record entitled to vote at the meeting.

**Section 10. Voting Rights.** For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, will be entitled to vote at any meeting of stockholders. Every person entitled to vote or execute consents will have the right to do so either in person, by remote communication, if applicable, or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy will be voted after three years from its date of creation unless the proxy provides for a longer period.

**Section 11. Joint Owners of Stock.** If shares or other securities having voting power stand of record in the names of two or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship where it is so provided, their acts with respect to voting (including giving consent pursuant to Section 13) will have the following effect: (a) if only one votes, his or her act binds all; (b) if more than one votes and the vote is not evenly split, the act of the majority so voting binds all; (c) if more than one votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in the DGCL, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) will be a majority or even-split in interest.

**Section 12. List of Stockholders.** The Secretary will prepare and make, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list will be open to the

examination of any stockholder, for any purpose germane to the meeting, on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list will be open to examination of any stockholder during the time of the meeting as provided by law.

### **Section 13. Action Without Meeting.**

(a) Unless otherwise provided in the Certificate of Incorporation, any action required by statute to be taken at any annual or special meeting of the stockholders, or any action that may be taken at any annual or special meeting of the stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, or by electronic transmission setting forth the action so taken, will be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

(b) Every written consent or electronic transmission will bear the date of signature of each stockholder who signs the consent, and no written consent or electronic transmission will be effective to take the corporate action referred to therein unless, within 60 days of the earliest dated consent delivered to the corporation in the manner herein required, written consents or electronic transmissions signed by a sufficient number of stockholders to take action are delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office will be by hand or by certified or registered mail, return receipt requested.

(c) Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent will be given to those stockholders who have not consented in writing or by electronic transmission and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of stockholders to take action were delivered to the corporation as provided in Section 228(c) of the DGCL. If the action to which the stockholders consented is such as would have required the filing of a certificate under any section of the DGCL if such action had been voted on by stockholders at a meeting thereof, then the certificate filed under such section must state, in lieu of any statement required by such section concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL.

(d) An electronic mail, facsimile or other electronic transmission consenting to an action to be taken and transmitted by a stockholder or proxyholder, or by a person or persons authorized to act for a stockholder or proxyholder, shall be deemed to be written and signed for the purposes of this Section, provided that any such electronic mail, facsimile or other electronic transmission sets forth or is delivered with information from which the corporation can determine (i) that the electronic mail, facsimile or other electronic transmission was

transmitted by the stockholder or proxyholder or by a person or persons authorized to act for the stockholder or proxyholder and (ii) the date on which such stockholder or proxyholder or authorized person or persons transmitted such electronic mail, facsimile or electronic transmission. A consent given by electronic mail, facsimile or other electronic transmission is delivered to the corporation upon the earliest of: (1) when the consent enters an information processing system (e.g., electronic mail, docuSign, Adobe Sign or other similar system), if any, designated by the corporation for receiving consents, so long as the electronic transmission is in a form capable of being processed by that system and the corporation is able to retrieve that electronic transmission; (2) when a paper reproduction of the consent is delivered to the corporation's principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded; (3) when a paper reproduction of the consent is delivered to the corporation's registered office in the State of Delaware by hand or by certified or registered mail, return receipt requested; (4) when delivered in such other manner, if any, provided by resolution of the Board of Directors; or (5) when delivered in such other manner that complies with the DGCL. A consent given by electronic mail, facsimile or other electronic transmission is delivered under this Section even if no person is aware of its receipt. Receipt of an electronic acknowledgement from an information processing system establishes that a consent given by electronic transmission was received but, by itself, does not establish that the content sent corresponds to the content received. Any copy, facsimile or other reliable reproduction of a consent in writing may be substituted or used in lieu of the original writing for any and all purposes for which the original writing could be used, provided that such copy, facsimile or other reproduction shall be a complete reproduction of the entire original writing.

#### **Section 14. Organization.**

**(a)** At every meeting of stockholders, the Chair of the Board of Directors, or, if a Chair has not been appointed or is absent, the Chief Executive Officer, or, if the Chief Executive Officer is absent, a chair of the meeting chosen by a majority in interest of the stockholders entitled to vote, present in person or by proxy, will act as chair. The Secretary, or, in his or her absence, an Assistant Secretary directed to do so by the Chief Executive Officer, will act as secretary of the meeting.

**(b)** The Board of Directors is entitled to make such rules or regulations for the conduct of meetings of stockholders as it deems necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chair of the meeting has the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chair, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chair permits, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters that are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting will be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chair of the meeting, meetings of stockholders will not be required to be held in accordance with rules of parliamentary procedure.

## ARTICLE IV

### DIRECTORS

**Section 15. Number and Term of Office.** The authorized number of directors of the corporation will be fixed by the Board of Directors from time to time. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors have not been elected at an annual meeting, they may be elected as soon thereafter as convenient.

**Section 16. Powers.** The business and affairs of the corporation will be managed by or under the direction of the Board of Directors, except as otherwise provided by statute or by the Certificate of Incorporation.

**Section 17. Term of Directors.** Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, directors will be elected at each annual meeting of stockholders to serve until his or her successor is duly elected and qualified or until his or her death, resignation or removal. No decrease in the number of directors constituting the Board of Directors will shorten the term of any incumbent director.

**Section 18. Vacancies.** Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors will, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships will be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, or by a sole remaining director; *provided, however*, that whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series will, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships must be filled by stockholders, be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected. Any director elected in accordance with the preceding sentence will hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor has been elected and qualified. A vacancy in the Board of Directors will be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director.

**Section 19. Resignation.** Any director may resign at any time by delivering his or her notice in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time, upon receipt by the Secretary or at the pleasure of the Board of Directors. If no such specification is made, it will be deemed effective at the pleasure of the Board of Directors. When one or more directors resigns from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, will have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations become effective, and each director so chosen will hold office for the unexpired portion of the term of the director whose place is vacated and until his or her successor has been duly elected and qualified.

**Section 20. Removal.** Subject to any limitations imposed by applicable law, the Board of Directors or any director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock of the corporation entitled to vote generally at an election of directors or (ii) without cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock of the corporation, entitled to elect such director.

**Section 21. Meetings.**

**(a) Regular Meetings.** Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware that has been designated by the Board of Directors and publicized among all directors, either orally or in writing, including a voice-messaging system or other system designated to record and communicate messages, facsimile, or by electronic mail or other electronic means. No further notice will be required for a regular meeting of the Board of Directors.

**(b) Special Meetings.** Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chair of the Board of Directors, the Chief Executive Officer (if a director), the President (if a director) or any director.

**(c) Meetings by Electronic Communications Equipment.** Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means constitutes presence in person at such meeting.

**(d) Notice of Special Meetings.** Notice of the time and place of all special meetings of the Board of Directors will be orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least 24 hours before the date and time of the meeting. If notice is sent by US mail, it will be sent by first class mail, postage prepaid at least three days before the date of the meeting. Notice of any meeting may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.



**(e) Waiver of Notice.** The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, will be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice signs a written waiver of notice or waives notice by electronic transmission. All such waivers will be filed with the corporate records or made a part of the minutes of the meeting.

## **Section 22. Quorum and Voting.**

**(a)** Unless the Certificate of Incorporation requires a greater number, a quorum of the Board of Directors will consist of a majority of the total number of directors then serving; *provided, however*, that such number will never be less than 1/3 of the total number of directors authorized except that when one director is authorized, then one director will constitute a quorum. At any meeting, whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting. If the Certificate of Incorporation provides that one or more directors will have more or less than one vote per director on any matter, every reference in this Section to a majority or other proportion of the directors will refer to a majority or other proportion of the votes of the directors.

**(b)** At each meeting of the Board of Directors at which a quorum is present, all questions and business will be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

**Section 23. Action Without Meeting.** Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent in writing or by electronic transmission, and such writing or writings or transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing will be in paper form if the minutes are maintained in paper form and will be in electronic form if the minutes are maintained in electronic form.

**Section 24. Fees and Compensation.** Directors will be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained is to be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor.

## **Section 25. Committees.**

**(a) Executive Committee.** The Board of Directors may appoint an Executive Committee to consist of one or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors, will have and may exercise all the powers and authority of the Board of Directors in

the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers that may require it; but no such committee will have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any bylaw of the corporation.

**(b) Other Committees.** The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors will consist of one or more members of the Board of Directors and will have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event will any such committee have the powers denied to the Executive Committee in these Bylaws.

**(c) Term.** The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock and the provisions of paragraphs (a) or (b) of this Section may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member will terminate on the date of his or her death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

**(d) Meetings.** Unless the Board of Directors otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section will be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place that has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the authorized number of members of any such committee will constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present will be the act of such committee.

**Section 26. Duties of Chair of the Board of Directors.** The Chair of the Board of Directors, when present, will preside at all meetings of the stockholders and the Board of Directors. The Chair of the Board of Directors will perform other duties commonly incident to the office and will also perform such other duties and have such other powers as the Board of Directors designates from time to time. If there is no Chief Executive Officer and no President, then the Chair of the Board of Directors will also serve as the Chief Executive Officer of the corporation and will have the powers and duties prescribed in Section 29(b).

**Section 27. Organization.** At every meeting of the directors, the Chair of the Board of Directors, or, if a Chair has not been appointed or is absent, the Chief Executive Officer (if a director), or if the Chief Executive Officer is not a director or is absent, the President (if a director), or if the President is not a director or is absent, the most senior Vice President (if a director) or, in the absence of any such person, a chair of the meeting chosen by a majority of the directors present, will preside over the meeting. The Secretary, or in his or her absence, any Assistant Secretary directed to do so by the Chief Executive Officer or President, will act as secretary of the meeting.

## ARTICLE V

### OFFICERS

**Section 28. Officers Designated.** The officers of the corporation will include, if and when designated by the Board of Directors, the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer, the Treasurer and the Controller, all of whom will be elected or appointed from time to time by the Board of Directors. The Board of Directors may also appoint one or more Assistant Secretaries, Assistant Treasurers, Assistant Controllers and such other officers and agents with such powers and duties as it deems necessary. The Board of Directors may assign such additional titles to one or more of the officers as it deems appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation will be fixed by or in the manner designated by the Board of Directors.

#### **Section 29. Tenure and Duties of Officers.**

**(a) General.** All officers will hold office at the pleasure of the Board of Directors and until their successors have been duly elected or appointed and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors, or by the Chief Executive Officer or other officer if so authorized by the Board of Directors.

**(b) Duties of Chief Executive Officer.** The Chief Executive Officer will preside at all meetings of the stockholders and (if a director) at all meetings of the Board of Directors, unless the Chair of the Board of Directors has been appointed and is present. The Chief Executive Officer will be the chief executive officer of the corporation and will, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The Chief Executive Officer will perform other duties commonly incident to the office and will also perform such other duties and have such other powers as the Board of Directors designates from time to time.

**(c) Duties of President.** In the absence or disability of the Chief Executive Officer or if the office of Chief Executive Officer is vacant, the President will preside at all meetings of the stockholders and (if a director) at all meetings of the Board of Directors, unless the Chair of the Board of Directors has been appointed and is present. If the office of Chief Executive Officer is vacant, the President will be the chief executive officer of the corporation (including for purposes of any reference to Chief Executive Officer in these Bylaws) and will, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President will perform other duties commonly incident to the office and will also perform such other duties and have such other powers as the Board of Directors designates from time to time.

**(d) Duties of Vice Presidents.** The Vice Presidents may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant. The Vice Presidents will perform other duties commonly incident to their office and will also perform such other duties and have such other powers as the Board of Directors or the President designates from time to time.

**(e) Duties of Secretary.** The Secretary will attend all meetings of the stockholders and of the Board of Directors and will record all acts and proceedings thereof in the minute book of the corporation. The Secretary will give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary will perform all other duties provided for in these Bylaws and other duties commonly incident to the office and will also perform such other duties and have such other powers as the Board of Directors will designate from time to time. The Chief Executive Officer may direct any Assistant Secretary to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary will perform other duties commonly incident to the office and will also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer designates from time to time.

**(f) Duties of Chief Financial Officer.** The Chief Financial Officer will keep or cause to be kept the books of account of the corporation in a thorough and proper manner and will render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the Chief Executive Officer. The Chief Financial Officer, subject to the order of the Board of Directors, will have the custody of all funds and securities of the corporation. The Chief Financial Officer will perform other duties commonly incident to his or her office and will also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer designate from time to time. The Chief Executive Officer may direct the Treasurer or any Assistant Treasurer, or the Controller or any Assistant Controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller will perform other duties commonly incident to the office and will also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer designates from time to time.

**Section 30. Delegation of Authority.** The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

**Section 31. Resignations.** Any officer may resign at any time by giving notice in writing or by electronic transmission notice to the Board of Directors or to the Chief Executive Officer or to the President or to the Secretary. Any such resignation will be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation will become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation will not be necessary to make it effective. Any resignation will be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer.

**Section 32. Removal.** Any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written or electronic consent of the directors in office at the time, or by any committee or superior officers upon whom such power of removal may have been conferred by the Board of Directors.

## ARTICLE VI

### EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

**Section 33. Execution of Corporate Instruments.** The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name, or to enter into contracts on behalf of the corporation, except as otherwise provided by law or these Bylaws, and such execution or signature will be binding upon the corporation. All checks and drafts drawn on banks or other depositories of funds to the credit of the corporation or on special accounts of the corporation will be signed by such person or persons as the Board of Directors authorizes so to do. Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee will have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

**Section 34. Voting of Securities Owned by the Corporation.** All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, will be voted, and all proxies with respect thereto will be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chair of the Board of Directors, the Chief Executive Officer, the President, or any Vice President.

## ARTICLE VII

### SHARES OF STOCK

**Section 35. Form and Execution of Certificates.** The shares of the corporation will be represented by certificates, or will be uncertificated. Certificates for the shares of stock, if any, of the corporation will be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of shares of stock in the corporation represented by certificate will be entitled to have a certificate signed by or in the name of the corporation by any two authorized officers of the corporation, including but not limited to the Chief Executive Officer, the President, the Chief Financial Officer, any Vice President, the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him or her in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he or she were such officer, transfer agent, or registrar at the date of issue.

**Section 36. Lost Certificates.** A new certificate or certificates will be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner's legal representative, to agree to indemnify the corporation in such manner as it requires or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

**Section 37. Right of First Refusal.** No stockholder will Transfer any of the shares of stock of the corporation, except by a Transfer that meets the requirements set forth in this Section 37, in addition to any other restrictions or requirements set forth under applicable law or these Bylaws:

(a) If the stockholder desires to Transfer any of his or her shares of stock, then the stockholder must first give written notice thereof to the corporation. The notice must name the proposed transferee and state the number of shares to be transferred, the proposed consideration, and all other terms and conditions of the proposed transfer.

(b) For 30 days following receipt of such notice, the corporation has the option to purchase up to all the shares specified in the notice at the price and upon the terms set forth in such notice; *provided, however*, that, with the consent of the stockholder, the corporation has the option to purchase a lesser portion of the shares specified in said notice at the price and upon the terms set forth therein. In the event of a gift, property settlement or other Transfer in which the proposed transferee is not paying the full price for the shares, and that is not otherwise exempted from the provisions of this Section, the price will be deemed to be the fair market value of the stock at such time as determined in good faith by the Board of Directors. In the event the corporation elects to purchase all of the shares or, with consent of the stockholder, a lesser portion of the shares, it will give written notice to the transferring stockholder of its election and settlement for said shares will be made as provided below in paragraph (d) of this Section.

(c) The corporation may assign its rights hereunder.

(d) In the event the corporation and/or its assignee(s) elect to acquire any of the shares of the transferring stockholder as specified in said transferring stockholder's notice, the Secretary of the corporation will so notify the transferring stockholder and settlement thereof will be made in cash within 30 days after the Secretary of the corporation receives said transferring stockholder's notice; provided that if the terms of payment set forth in said transferring stockholder's notice were other than cash against delivery, the corporation and/or its assignee(s) will pay for said shares on the same terms and conditions set forth in said transferring stockholder's notice.

(e) In the event the corporation and/or its assignees(s) do not elect to acquire all of the shares specified in the transferring stockholder's notice, said transferring stockholder may, within the 60-day period following the expiration or waiver of the option rights granted to the corporation and/or its assignees(s) herein, Transfer the shares specified in said transferring stockholder's notice that were not acquired by the corporation and/or its assignees(s) as specified in said transferring stockholder's notice. All shares so sold by said transferring stockholder will continue to be subject to the provisions of this Section 37 in the same manner as before said Transfer.

(f) Anything to the contrary contained herein notwithstanding, the following transactions are exempt from the right of first refusal contained in this Section 37:

(1) A stockholder's Transfer of any or all shares held either during such stockholder's lifetime or on death by will or intestacy to such stockholder's immediate family or to any custodian or trustee for the account of such stockholder or such stockholder's immediate family or to any limited partnership or limited liability company of which the stockholder, members of such stockholder's immediate family or any trust for the account of such stockholder or such stockholder's immediate family will be the general or limited partner(s) of such partnership or the controlling member(s) of such limited liability company. "Immediate family" as used herein means spouse, lineal descendant, father, mother, brother, or sister of the stockholder making such Transfer;

(2) A stockholder's bona fide pledge or mortgage of any shares with a commercial lending institution, provided that any subsequent Transfer of said shares by said institution will be conducted in the manner set forth in this Section 37;

(3) A stockholder's Transfer of any or all of such stockholder's shares to the corporation or to any other stockholder of the corporation;

(4) A stockholder's Transfer of any or all of such stockholder's shares to a person who, at the time of such Transfer, is an officer or director of the corporation;

(5) A corporate stockholder's Transfer of any or all of its shares pursuant to and in accordance with the terms of any merger, consolidation, reclassification of shares or capital reorganization of the corporate stockholder, or pursuant to a sale of all or substantially all of the stock or assets of a corporate stockholder;

(6) A corporate stockholder's Transfer of any or all of its shares to any or all of its stockholders; or

(7) A Transfer by a stockholder that is a limited or general partnership to any or all of its partners or former partners in accordance with partnership interests.

In any such case, the transferee, assignee, or other recipient will receive and hold such stock subject to the provisions of this Section and any other restrictions set forth in these Bylaws, and there will be no further Transfer of such stock except in accord with this Section and the other provisions of these Bylaws.

(g) The provisions of this Section 37 may be waived with respect to any Transfer either by the corporation, upon duly authorized action of its Board of Directors, or by the stockholders, upon the express written consent of the owners of a majority of the voting power of the corporation (excluding the votes represented by those shares to be transferred by the transferring stockholder). This Section 37 may be amended or repealed either by a duly authorized action of the Board of Directors or by the stockholders, upon the express written consent of the owners of a majority of the voting power of the corporation.

(h) Any Transfer, or purported Transfer, of securities of the corporation will be null and void unless the terms, conditions, and provisions of this Section 37 are strictly observed and followed.

(i) The restrictions on Transfer set forth in this Section 37 will not apply to the Transfer of shares of Preferred Stock or to the Transfer of any shares of Common Stock issued upon the conversion of any shares of Preferred Stock.

(j) The foregoing right of first refusal will terminate upon the date securities of the corporation are first offered to the public pursuant to a registration statement filed with, and declared effective by, the SEC under the Securities Act of 1933, as amended.

(k) The certificates representing shares of stock of the corporation that are subject to the right of first refusal contained in this Section 37 will bear on their face the following legend so long as the foregoing right of first refusal remains in effect:

"THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A RIGHT OF FIRST REFUSAL OPTION IN FAVOR OF THE CORPORATION AND/OR ITS ASSIGNEE(S), AS PROVIDED IN THE BYLAWS OF THE CORPORATION."

(l) To the extent this Section conflicts with any written agreements between the corporation and the stockholder attempting to Transfer shares, such agreement will control.



### Section 38. Fixing Record Dates.

(a) In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix, in advance, a record date, which record date will not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date will, subject to applicable law, not be more than 60 nor less than 10 days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders will be at the close of business on the day immediately preceding the day on which notice is given, or if notice is waived, at the close of business on the day immediately preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders will apply to any adjournment of the meeting; *provided, however*, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to consent to corporate action in writing without a meeting, the Board of Directors may fix a record date, which record date will not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which date will not be more than 10 days after the date upon which the resolution fixing the record date is adopted by the Board of Directors. Any stockholder of record seeking to have the stockholders authorize or take corporate action by written consent will, by written notice to the Secretary, request the Board of Directors to fix a record date. The Board of Directors will promptly, but in all events within 10 days after the date on which such a request is received, adopt a resolution fixing the record date. If no record date has been fixed by the Board of Directors within 10 days of the date on which such a request is received, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is required by applicable law, will be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to the corporation's registered office will be by hand or by certified or registered mail, return receipt requested. If no record date has been fixed by the Board of Directors and prior action by the Board of Directors is required by law, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting will be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.

(c) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date will not precede the date upon which the resolution fixing the record date is adopted, and which record date will be not more than 60 days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose will be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

**Section 39. Registered Stockholders.** The corporation is entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and is not bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it has express or other notice thereof, except as otherwise provided by the laws of Delaware.

## ARTICLE VIII

### OTHER SECURITIES OF THE CORPORATION

**Section 40. Execution of Other Securities.** All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 35 of these Bylaws), may be signed by the Chair of the Board of Directors, the Chief Executive Officer, the President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer; *provided, however*, that where any such bond, debenture or other corporate security is authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security is issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, will be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who has signed or attested any bond, debenture or other corporate security, or whose facsimile signature appears thereon or on any such interest coupon, has ceased to be such officer before the bond, debenture or other corporate security so signed or attested has been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature has been used thereon had not ceased to be such officer of the corporation.

## ARTICLE IX

### DIVIDENDS

**Section 41. Declaration of Dividends.** Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

**Section 42. Dividend Reserve.** Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors thinks conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

**ARTICLE X**

**FISCAL YEAR**

**Section 43. Fiscal Year.** The fiscal year of the corporation will be fixed by resolution of the Board of Directors.

**ARTICLE XI**

**INDEMNIFICATION**

**Section 44. Indemnification of Directors, Executive Officers, Other Officers, Employees and Other Agents.**

**(a) Directors and Executive Officers.** The corporation will indemnify its directors and executive officers (for the purposes of this Article, “executive officers” has the meaning defined in Rule 3b-7 promulgated under the 1934 Act) to the fullest extent not prohibited by the DGCL or any other applicable law; *provided, however*, that the corporation may modify the extent of such indemnification by individual contracts with its directors and executive officers; and, *provided, further*, that the corporation will not be required to indemnify any director or executive officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the DGCL or any other applicable law or (iv) such indemnification is required to be made under paragraph (d) of this Section.

**(b) Other Officers, Employees and Other Agents.** The corporation will have power to indemnify its other officers, employees and other agents as set forth in the DGCL or any other applicable law. The Board of Directors will have the power to delegate the determination of whether indemnification will be given to any such person except executive officers to such officers or other persons as the Board of Directors determines.

**(c) Expenses.** The corporation will advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person is or was a director or executive officer of the corporation, or is or was serving at the request of the corporation as a director or executive officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or executive officer in connection with such proceeding, *provided, however*, that, if the DGCL requires, an advancement of expenses incurred by a director or officer in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such indemnitee,

including, without limitation, service to an employee benefit plan) will be made only upon delivery to the corporation of an undertaking, by or on behalf of such indemnitee, to repay all amounts so advanced if it is ultimately determined by final judicial decision from which there is no further right to appeal that such indemnitee is not entitled to be indemnified for such expenses under this Section or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (e) of this Section, no advance will be made by the corporation to an executive officer of the corporation (except by reason of the fact that such executive officer is or was a director of the corporation, in which event this paragraph will not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by a majority vote of a quorum consisting of directors who were not parties to the proceeding, even if not a quorum, or (ii) by a committee of such directors designated by a majority of such directors, even though less than a quorum, or (iii) if there are no such directors, or such directors so direct, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

**(d) Enforcement.** Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and executive officers under this Section will be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or executive officer. Any right to indemnification or advances granted by this Section to a director or executive officer will be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within 90 days of request therefor. The claimant in such enforcement action, if successful in whole or in part, will be entitled to be paid also the expense of prosecuting the claim. In connection with any claim for indemnification, the corporation will be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an executive officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such executive officer is or was a director of the corporation) for advances, the corporation will be entitled to raise as a defense as to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation, or with respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his or her conduct was lawful. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, will be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct.

**(e) Non-Exclusivity of Rights.** The rights conferred on any person by this Section are not exclusive of any other right that such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL or any other applicable law.

**(f) Survival of Rights.** The rights conferred on any person by this Section will continue as to a person who has ceased to be a director or executive officer and will inure to the benefit of the heirs, executors and administrators of such a person.

**(g) Insurance.** To the fullest extent permitted by the DGCL, or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this Section.

**(h) Amendments.** Any repeal or modification of this Section is only prospective and does not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

**(i) Saving Clause.** If this Section or any portion hereof is invalidated on any ground by any court of competent jurisdiction, then the corporation will nevertheless indemnify each director and executive officer to the full extent not prohibited by any applicable portion of this Bylaw that has not been invalidated, or by any other applicable law. If this Section is invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation will indemnify each director and executive officer to the full extent under applicable law.

**(j) Certain Definitions.** For the purposes of this Section, the following definitions apply:

**(1)** The term “proceeding” is to be broadly construed and includes, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

**(2)** The term “expenses” is to be broadly construed and includes, without limitation, court costs, attorneys’ fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(3) The term the “corporation” includes, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger that, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, stands in the same position under the provisions of this Section with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(4) References to a “director,” “executive officer,” “officer,” “employee,” or “agent” of the corporation include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(5) References to “other enterprises” include employee benefit plans; references to “fines” include any excise taxes assessed on a person with respect to an employee benefit plan; and references to “serving at the request of the corporation” include any service as a director, officer, employee or agent of the corporation that imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan is deemed to have acted in a manner “not opposed to the best interests of the corporation” as referred to in this Section.

## ARTICLE XII

### NOTICES

#### Section 45. Notices.

(a) **Notice to Stockholders.** Written notice to stockholders of stockholder meetings will be given as provided in Section 7 of these Bylaws. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with such stockholder, and except as otherwise required by law, written notice to stockholders for purposes other than stockholder meetings may be sent by United States mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means.

(b) **Notice to Directors.** Any notice required to be given to any director may be given by the method stated in paragraph (a) of this Section, or as provided for in Section 21 of these Bylaws. If such notice is not delivered personally, it will be sent to such address as such director has filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

(c) **Affidavit of Mailing.** An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, will in the absence of fraud, be prima facie evidence of the facts therein contained.

**(d) Methods of Notice.** It is not necessary that the same method of giving notice be employed in respect of all recipients of notice, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

**(e) Notice to Person with Whom Communication Is Unlawful.** Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person is not required and there is no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting that is taken or held without notice to any such person with whom communication is unlawful has the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate will state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

**(f) Notice to Stockholders Sharing an Address.** Except as otherwise prohibited under DGCL, any notice given under the provisions of DGCL, the Certificate of Incorporation or the Bylaws will be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent is deemed to have been given if such stockholder fails to object in writing to the corporation within 60 days of having been given notice by the corporation of its intention to send the single notice. Any consent is revocable by the stockholder by written notice to the corporation.

## ARTICLE XIII

### AMENDMENTS

**Section 46. Amendments.** The Board of Directors is expressly empowered to adopt, amend or repeal Bylaws of the corporation. The stockholders also have power to adopt, amend or repeal the Bylaws of the corporation; *provided, however*, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, such action by stockholders requires the affirmative vote of the holders of a majority of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors, voting together as a single class.

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**ARTICLE XIV**

**LOANS TO OFFICERS**

**Section 47. Loans to Officers.** Except as otherwise prohibited under applicable law, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a Director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors approves, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws is deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

**ARTICLE XV**

**MISCELLANEOUS**

**Section 48. Forum.** Unless the corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware is the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the corporation; (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the corporation to the corporation or the corporation's stockholders; (iii) any action asserting a claim against the corporation or any director or officer or other employee of the corporation arising pursuant to any provision of the DGCL, the certificate of incorporation or the Bylaws of the corporation; or (iv) any action asserting a claim against the corporation or any director or officer or other employee of the corporation governed by the internal affairs doctrine.



**AMENDED AND RESTATED  
INVESTORS' RIGHTS AGREEMENT**

**THIS AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT** (this "**Agreement**"), is made as of August 13, 2021, by and among Vigil Neuroscience, Inc., a Delaware corporation (the "**Company**"), and each of the investors listed on **Schedule A** hereto and any subsequent purchasers of Series B Preferred Stock who become parties hereto as "Investors" pursuant to Section 6.9 below, each of which is referred to in this Agreement as an "**Investor**".

**RECITALS:**

**A.** Certain of the Investors (the "**Existing Investors**") hold shares of Series A Preferred Stock and/or shares of Common Stock (as such terms are defined below) issued upon conversion thereof and possess registration rights, information rights, rights of first offer, and other rights pursuant to that certain Investors' Rights Agreement dated as of September 18, 2020, by and among the Company and such Existing Investors (the "**Prior Agreement**").

**B.** The Existing Investors and the Company desire to induce certain of the Investors to purchase shares of Series B Preferred Stock of the Company, par value \$0.0001 per share ("**Series B Preferred Stock**"), pursuant to that certain Series B Preferred Stock Purchase Agreement, dated as of the date hereof, by and among the Company and such Investors (the "**Purchase Agreement**") by amending and restating the Prior Agreement in its entirety to provide the Investors with the rights and privileges as set forth herein.

The Company, the Investors, including the Existing Investors, each hereby agrees that the Prior Agreement is hereby amended and restated in its entirety by this Agreement, and the parties hereto further agree as follows

**1. Definitions.** For purposes of this Agreement:

**1.1 "Affiliate"** means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including without limitation any general partner, managing member, officer, director or trustee of such Person, or any venture capital fund or other investment fund or registered investment company now or hereafter existing that is controlled by one or more general partners, managing members or investment advisers of, or shares the same management company or investment adviser with, such Person.

**1.2 "Alexandria"** means Alexandria Venture Investments, LLC.

**1.3 "Atlas"** means Atlas Venture Fund XII, L.P.

**1.4 "Board of Directors"** means the board of directors of the Company.

**1.5 "Certificate of Incorporation"** means the Company's Second Amended and Restated Certificate of Incorporation, as amended and/or restated from time to time.

**1.6 "Common Stock"** means shares of the Company's common stock, par value \$0.0001 per share.

**1.7 “Competitor”** means a Person (including through any partnership, limited liability company, corporation, joint venture or similar arrangement (whether now existing or formed hereafter)) engaged, directly or indirectly, in any business that is, directly or indirectly, engaged in the development, marketing, distribution, licensing, sale or provision of any products or services that are competitive with any products or services developed, marketed, distributed, licensed, sold or provided by the Company and/or its subsidiaries, but shall not include any venture capital fund or other investment fund or financial investment firm that, together with its Affiliates, holds less than twenty percent (20%) of the outstanding equity of any Competitor and does not, nor do any of its Affiliates, have a right to designate any members of the board of directors of any Competitor; *provided, however*, that in no event will any Investor be deemed to be a Competitor by virtue of its status as a venture capital fund or other investment fund or financial investment firm.

**1.8 “Damages”** means any loss, damage, claim or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, claim or liability (or any action in respect thereof) arises out of or is based upon: (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

**1.9 “Derivative Securities”** means any securities or rights convertible into, or exercisable or exchangeable for (in each case, directly or indirectly), Common Stock, including options and warrants.

**1.10 “Exchange Act”** means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

**1.11 “Excluded Registration”** means (i) a registration relating to the sale or grant of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, equity incentive or similar plan; (ii) a registration relating to an SEC Rule 145 transaction; (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or (iv) a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered.

**1.12 “FOIA Party”** means a Person that, in the reasonable determination of the Board of Directors, may be subject to, and thereby required to disclose non-public information furnished by or relating to the Company under, the Freedom of Information Act, 5 U.S.C. 552 (“**FOIA**”), any state public records access law, any state or other jurisdiction’s laws similar in intent or effect to FOIA, or any other similar statutory or regulatory requirement.

**1.13 “Form S-1”** means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

**1.14 “Form S-3”** means such form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC that permits forward incorporation of substantial information by reference to other documents filed by the Company with the SEC.

1.15 “**GAAP**” means generally accepted accounting principles in the United States as in effect from time to time.

1.16 “**Hatteras**” means Hatteras Venture Partners VI, LP.

1.17 “**Holder**” means any holder of Registrable Securities who is a party to this Agreement.

1.18 “**Immediate Family Member**” means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, domestic partner, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including, adoptive relationships, of a natural person referred to herein.

1.19 “**Initiating Holders**” means, collectively, Holders who properly initiate a registration request under this Agreement.

1.20 “**IPO**” means the Company’s first underwritten public offering of its Common Stock under the Securities Act.

1.21 “**Key Employee**” means any executive-level employee (including division director and vice president-level positions) as well as any employee or consultant who either alone or in concert with others develops, invents, programs or designs any Company Intellectual Property (as defined in the Purchase Agreement).

1.22 “**Lightstone**” means Lightstone Ventures III, L.P.

1.23 “**Major Investor**” means any Investor that, individually or together with such Investor’s Affiliates, holds at least 1,500,000 shares of Registrable Securities or at least 200,000 shares of Series B Preferred Stock, in each case, as adjusted for any stock split, stock dividend, combination, or other recapitalization or reclassification effected after the date hereof, and each Person to whom any of the rights of any such Investor are assigned pursuant to Section 6.1.

1.24 “**New Securities**” means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase or acquire such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

1.25 “**Northpond**” means Northpond Ventures LP.

1.26 “**Person**” means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.27 “**Preferred Directors**” means the Series A Directors and the Series B Director collectively.

1.28 “**Preferred Stock**” means, collectively, shares of Series A Preferred Stock and Series B Preferred Stock.

**1.29 “Registrable Securities”** means (i) the Common Stock issuable or issued upon conversion of the Preferred Stock; (ii) any Common Stock, or any Common Stock issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company, held by the Investors on the date of this Agreement, or acquired by the Investors after the date hereof; and (iii) any Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clause (i) above; excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which the applicable rights under this Agreement are not assigned pursuant to Section 6.1, and excluding for purposes of Section 2 any shares for which registration rights have terminated pursuant to Section 2.13 of this Agreement.

**1.30 “Registrable Securities then outstanding”** means the number of shares determined by adding the number of shares of outstanding Common Stock that are Registrable Securities and the number of shares of Common Stock issuable (directly or indirectly) pursuant to then exercisable and/or convertible securities that are Registrable Securities.

**1.31 “Restricted Securities”** means the securities of the Company required to be notated with the legend set forth in Section 2.12(b) hereof.

**1.32 “SEC”** means the Securities and Exchange Commission.

**1.33 “SEC Rule 144”** means Rule 144 promulgated by the SEC under the Securities Act.

**1.34 “SEC Rule 145”** means Rule 145 promulgated by the SEC under the Securities Act.

**1.35 “Securities Act”** means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

**1.36 “Selling Expenses”** means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Company as provided in Section 2.6.

**1.37 “Series A Director”** means any director of the Company that the holders of record of the Series A Preferred Stock are entitled to elect, exclusively and as a separate class, pursuant to the Certificate of Incorporation.

**1.38 “Series B Director”** means any director of the Company that the holders of record of the Series B Preferred Stock are entitled to elect, exclusively and as a separate class, pursuant to the Certificate of Incorporation.

**1.39 “Series A Preferred Stock”** means shares of the Company’s Series A Preferred Stock, par value \$0.0001 per share.

**1.40 “Surveyor”** means Citadel Multi-Strategy Equities Master Fund Ltd. and its Affiliates.

**1.41 “Vida”** means Vida Ventures, LLC and its Affiliates.

**2. Registration Rights.** The Company covenants and agrees as follows:

**2.1 Demand Registration.**

**(a) Form S-1 Demand.** If at any time after the earlier of (i) five years after the date of this Agreement or (ii) 180 days after the effective date of the registration statement for the IPO, the Company receives a request from Holders of majority of the Registrable Securities then outstanding that the Company file a Form S-1 registration statement with respect to at least 40% of the Registrable Securities then outstanding covering the registration of Registrable Securities with an anticipated aggregate offering price, net of Selling Expenses, of at least \$10 million, then the Company shall (x) within 10 days after the date such request is given, give notice thereof (the “**Demand Notice**”) to all Holders other than the Initiating Holders; and (y) as soon as practicable, and in any event within 60 days after the date such request is given by the Initiating Holders, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within 20 days of the date the Demand Notice is given, and in each case, subject to the limitations of Sections 2.1(c) and 2.3.

**(b) Form S-3 Demand.** If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from Holders of at least 20% of the Registrable Securities then outstanding that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price, net of Selling Expenses, of at least \$3 million, then the Company shall (i) within 10 days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within 45 days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within 20 days of the date the Demand Notice is given, and in each case, subject to the limitations of Sections 2.1(c) and 2.3.

**(c)** Notwithstanding the foregoing obligations, if the Company furnishes to Holders requesting a registration pursuant to this Section 2.1 a certificate signed by the Company’s chief executive officer stating that in the good faith judgment of the Board of Directors it would be materially detrimental to the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than 120 days after the request of the Initiating Holders is given; *provided, however*, that the Company may not invoke this right more than once in any 12 month period; and provided further that the Company shall not register any securities for its own account or that of any other stockholder during such 120 day period other than an Excluded Registration.

**(d)** The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2.1(a): (i) during the period that is 60 days before the Company’s good faith estimate of the date of filing of, and ending on a date that is 180 days after the effective date of, a Company-initiated registration, *provided* that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) after the Company has effected two registrations pursuant to Section 2.1(a); or (iii) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 2.1(b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2.1(b): (i) during the period that is 30 days before the

Company's good faith estimate of the date of filing of, and ending on a date that is 90 days after the effective date of, a Company-initiated registration, *provided* that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; or (ii) if the Company has effected two registrations pursuant to Section 2.1(b) within the 12 month period immediately preceding the date of such request. A registration shall not be counted as "effected" for purposes of this Section 2.1(d) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration, elect not to pay the registration expenses therefor, and forfeit their right to one demand registration statement pursuant to Section 2.6, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Section 2.1(d); *provided*, that if such withdrawal is during a period the Company has deferred taking action pursuant to Section 2.1(c), then the Initiating Holders may withdraw their request for registration and such registration will not be counted as "effected" for purposes of this Section 2.1(d).

**2.2 Company Registration.** If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its securities under the Securities Act in connection with the public offering of such securities solely for cash (other than in an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within 20 days after such notice is given by the Company, the Company shall, subject to the provisions of Section 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.2 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Section 2.6.

### **2.3 Underwriting Requirements.**

(a) If, pursuant to Section 2.1, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Section 2.1, and the Company shall include such information in the Demand Notice. The underwriter(s) will be selected by the Company and shall be reasonably acceptable to a majority in interest of the Initiating Holders. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Section 2.4(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting; provided, however, that no Holder (or any of its assignees) shall be required to make any representations, warranties or indemnities except as they relate to Holder's ownership of shares, and authority to enter into the underwriting agreement and to such Holder's intended method of distribution, and the liability of such Holder shall be several and not joint, and limited to an amount equal to the net proceeds from the offering received by such Holder. Notwithstanding any other provision of this Section 2.3, if the managing underwriter(s) advise(s) the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder or in such other proportion as shall mutually be agreed to by all such selling Holders; *provided, however*, that the number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting; and *provided, further* any shares of Common Stock outstanding on the date of this

Agreement that constitute Registrable Securities, excluding any Registrable Securities held by Investors, shall be entirely excluded from the offering before any other Registrable Securities are excluded from such offering. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Section 2.2, the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, (ii) the number of Registrable Securities included in the offering be reduced below 20% of the total number of securities included in such offering, unless such offering is the IPO, in which case the selling Holders may be excluded further if the underwriters make the determination described above and no other stockholder's securities are included in such offering, or (iii) notwithstanding (ii) above, any shares of Common Stock outstanding on the date of this Agreement that constitute Registrable Securities, excluding any Registrable Securities held by Investors, shall be entirely excluded from the offering before any other Registrable Securities are excluded from such offering. For purposes of the provision in this Section 2.3(b) concerning apportionment, for any selling Holder that is a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, stockholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

(c) For purposes of Section 2.1, a registration shall not be counted as "effected" if, as a result of an exercise of the underwriter's cutback provisions in Section 2.3(a), fewer than 100% of the total number of Registrable Securities that Holders have requested to be included in such registration statement are actually included.

**2.4 Obligations of the Company.** Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to 120 days or, if earlier, until the distribution contemplated in the registration statement has been completed; *provided, however*, that such 120 day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Stock (or other securities) of the Company, from selling any securities included in such registration;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; *provided* that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling Holders, any managing underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(i) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(j) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.



In addition, the Company shall ensure that, at all times after any registration statement covering a public offering of securities of the Company under the Securities Act shall have become effective, its insider trading policy shall provide that the Company's directors may implement a trading program under Rule 10b5-1 of the Exchange Act.

**2.5 Furnish Information.** It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

**2.6 Expenses of Registration.** All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements, not to exceed \$50,000, of one counsel for the selling Holders selected by Holders of a majority of the Registrable Securities to be registered ("**Selling Holder Counsel**"), shall be borne and paid by the Company; *provided, however*, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2.1 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one registration pursuant to Sections 2.1(a) or 2.1(b), as the case may; provided further that if, at the time of such withdrawal, the Holders shall have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information be then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration pursuant to Sections 2.1(a) or 2.1(b). All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

**2.7 Delay of Registration.** No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

**2.8 Indemnification.** If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors, and stockholders of each such Holder; legal counsel and accountants for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder; and each Person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; *provided, however*, that the indemnity agreement contained in this Section 2.8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration except to the extent such information has been corrected in a subsequent writing prior to or concurrently with the sale of Registrable Securities to the Person asserting the claim.

**(b)** To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration and has not been corrected in a subsequent writing prior to or concurrently with the sale of Registrable Securities to the Person asserting the claim; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; *provided, however*, that the indemnity agreement contained in this Section 2.8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and *provided further* that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under Section 2.8(b) and 2.8(d) exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

**(c)** Promptly after receipt by an indemnified party under this Section 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.8, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; *provided, however*, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.8.

**(d)** To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either: (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Section 2.8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Section 2.8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Section 2.8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from

others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; *provided, however*, that, in any such case (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and *provided further* that in no event shall a Holder's liability pursuant to this Section 2.8(d), when combined with the amounts paid or payable by such Holder pursuant to Section 2.8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of willful misconduct or fraud by such Holder.

(e) Unless agreed by the Holders of at least a majority of the Registrable Securities then outstanding, the obligations of the Company and Holders under this Section shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement or any provision(s) of this Agreement.

**2.9 Reports Under Exchange Act.** With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after 90 days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); and (ii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

**2.10 Limitations on Subsequent Registration Rights.** From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of a majority of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that would (i) provide to such holder or prospective holder the right to include securities in any registration on other than either a pro rata basis with respect to the Registrable

Securities or on a subordinate basis after all Holders have had the opportunity to include in the registration and offering all shares of Registrable Securities that they wish to so include or (ii) allow such holder or prospective holder to include such securities in any registration unless, under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the number of the Registrable Securities of the Holders that are included; *provided* that this limitation shall not apply to Registrable Securities acquired by any additional Investor that becomes a party to this Agreement in accordance with Section 6.9.

**2.11 “Market Stand-off” Agreement.** Each Holder hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the IPO and ending on the date specified by the Company and the managing underwriter (such period not to exceed 180 days in the case of the IPO), (i) lend; offer; pledge; sell; contract to sell; sell any option or contract to purchase; purchase any option or contract to sell; grant any option, right, or warrant to purchase; or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Stock held immediately before the effective date of the registration statement for such offering or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash, or otherwise. The foregoing provisions of this Section 2.11 shall apply only to the IPO, and shall not apply to (a) the sale of any shares of Common Stock (x) purchased by the Holder in connection with the IPO, whether or not pursuant to an underwriting agreement, a private placement that is concurrent with the IPO, or otherwise, or (y) acquired in the open market at any time on or after the IPO; (b) the sale of any shares to an underwriter pursuant to an underwriting agreement, (c) transactions (including, without limitation, any swap, hedge or similar agreement or arrangement) or announcements, in each case, relating to securities acquired in the IPO or securities acquired in open market or other transactions from and after the IPO or that otherwise do not involve or relate to securities of the Company owned by a Holder prior to the IPO, or (d) the transfer of any shares to any trust for the direct or indirect benefit of the Holder or the Immediate Family Member of the Holder, *provided* that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and *provided further* that any such transfer shall not involve a disposition for value, and shall be applicable to the Holders only if all officers and directors are subject to the same restrictions and the Company uses commercially reasonable efforts to obtain a similar agreement from all stockholders individually (and together with their affiliated funds) owning 1% or more of the Company’s outstanding Common Stock (after giving effect to conversion into Common Stock of all outstanding Preferred Stock). The underwriters in connection with such registration are intended third-party beneficiaries of this Section 2.11 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Section 2.11 or that are necessary to give further effect thereto. Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply pro rata to all Company stockholders that are subject to such agreements, based on the number of shares subject to such agreements.

#### **2.12 Restrictions on Transfer.**

(a) The Preferred Stock and the Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Holder will cause any proposed purchaser, pledgee, or transferee of the Preferred Stock and the Registrable Securities held by such Holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement. Notwithstanding the foregoing, the Company shall not require any transferee of shares pursuant to an effective registration statement or, following the IPO, SEC Rule 144, in each case, to be bound by the terms of this Agreement.

**(b)** Each certificate, instrument, or book entry representing (i) the Preferred Stock, (ii) the Registrable Securities, and (iii) any other securities issued in respect of the securities referenced in clauses (i) and (ii), upon any stock split, stock dividend, recapitalization, merger, consolidation, or similar event, shall (unless otherwise permitted by the provisions of Section 2.12(c)) be notated with a legend substantially in the following form:

THE SECURITIES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SHARES MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT. THE SECURITIES REPRESENTED HEREBY MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Holders consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Section 2.12.

**(c)** The holder of such Restricted Securities, by acceptance of ownership thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction or following the IPO, the transfer is made pursuant to SEC Rule 144, the Holder thereof shall give notice to the Company of such Holder's intention to effect such sale, pledge, or transfer, provided that no such notice shall be required in connection if the intended sale, pledge or transfer complies with SEC Rule 144. Each such notice shall describe the manner and circumstances of the proposed sale, pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder's expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. The Company will not require such a legal opinion or "no action" letter (x) in any transaction in compliance with SEC Rule 144; (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder for no consideration; or (z) in any internal transaction in which such Holder transfers Restricted Securities to an Affiliate of such Holder that is an entity and that is ultimately controlled by the same parent company as the Holder (or is the ultimate parent company of the Holder); provided that, in the case of clauses (y) and (z) each transferee agrees in writing to be subject to the terms of this Section 2.12. Notwithstanding the foregoing, the Company shall be obligated to reissue promptly unlegended certificates or book entries at the request of any Holder thereof if the Company has completed its IPO and the Holder shall have obtained an opinion of counsel (which counsel may be counsel to the Company) to the effect that the securities proposed to be disposed of may

lawfully be so disposed of without registration, qualification and legend, provided that the second legend listed above shall be removed only at such time as the Holder of such certificate is no longer subject to any restrictions hereunder. Each certificate, instrument, or book entry representing the Restricted Securities transferred as above provided shall be notated with, except if such transfer is made pursuant to SEC Rule 144, the appropriate restrictive legend set forth in Section 2.12(b), except that such certificate instrument, or book entry shall not be notated with such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

**2.13 Termination of Registration Rights.** The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Sections 2.1 or 2.2 shall terminate upon the earliest to occur of:

(a) the closing of a Deemed Liquidation Event, as such term is defined in the Certificate of Incorporation;

(b) such time after consummation of the IPO as Rule 144 or another similar exemption under the Securities Act is available for the sale of all of such Holder's shares without limitation during a three-month period without registration (and without the requirement for the Company to be in compliance with the current public information required under subsection (c)(1) of SEC Rules 144) and such Holder (together with its "affiliates") determined under SEC Rule 144 holds less than one percent (1%) of the outstanding capital stock of the Company; and

(c) the fifth anniversary of the IPO.

### 3. Information and Observer Rights.

**3.1 Delivery of Financial Statements.** The Company shall deliver to each Major Investor, *provided* that the Board of Directors has not reasonably determined that such Major Investor is a Competitor of the Company:

(a) as soon as practicable, but in any event within 120 days after the end of each fiscal year of the Company (i) a balance sheet as of the end of such year, (ii) statements of income and of cash flows for such year, and (iii) a statement of stockholders' equity as of the end of such year, all such financial statements audited and certified by independent public accountants of regionally recognized standing selected by the Company;

(b) as soon as practicable, but in any event within 45 days after the end of each of the first three quarters of each fiscal year of the Company, unaudited statements of income and cash flows for such fiscal quarter, and an unaudited balance sheet and a statement of stockholders' equity as of the end of such fiscal quarter, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments; and (ii) not contain all notes thereto that may be required in accordance with GAAP);

(c) as soon as practicable, but in any event within forty-five (45) days after the end of each quarter of each fiscal year of the Company, a statement showing the number of shares of each class and series of capital stock and securities convertible into or exercisable for shares of capital stock outstanding at the end of the period, the Common Stock issuable upon conversion or exercise of any outstanding securities convertible or exercisable for Common Stock and the exchange ratio or exercise price applicable thereto, and the number of shares of issued stock options and stock options not yet issued but reserved for issuance, if any, all in sufficient detail as to permit the Major Investors to calculate their respective percentage equity ownership in the Company, and certified by the chief financial officer or chief executive officer of the Company as being true, complete, and correct;

(d) as soon as practicable, but in any event 30 days after the end of each fiscal year, a budget and business plan for the current fiscal year, prepared on a quarterly basis, including balance sheets, income statements, and statements of cash flow for such months and, promptly after prepared, any other budgets or revised budgets prepared by the Company (such budget and business plan to be approved by the Board of Directors (including the vote of at least three (3) of four (4) Preferred Directors (the “**Requisite Preferred Directors**”)));

(e) with respect to the financial statements called for in Section 3.1(a), and Section 3.1(b), an instrument executed by the chief financial officer and chief executive officer of the Company certifying that such financial statements were prepared in accordance with GAAP consistently applied with prior practice for earlier periods (except as otherwise set forth in Section 3.1(b)) and fairly present the financial condition of the Company and its results of operation for the periods specified therein; and

(f) such other information relating to the financial condition, business, prospects, or corporate affairs of the Company as any Major Investor may from time to time reasonably request; *provided, however*, that the Company shall not be obligated under this Section 3.1 to provide information (i) that the Company reasonably determines in good faith to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company); or (ii) the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

If, for any period, the Company has any subsidiary whose accounts are consolidated with those of the Company, then in respect of such period the financial statements delivered pursuant to the foregoing sections shall be the consolidated and consolidating financial statements of the Company and all such consolidated subsidiaries.

Notwithstanding anything else in this Section 3.1 to the contrary, the Company may cease providing the information set forth in this Section 3.1 during the period starting with the date 60 days before the Company’s good-faith estimate of the date of filing of a registration statement if it reasonably concludes it must do so to comply with the SEC rules applicable to such registration statement and related offering; *provided* that the Company’s covenants under this Section 3.1 shall be reinstated at such time as the Company is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective.

**3.2 Inspection.** The Company shall permit each Major Investor, *provided* that the Board of Directors has not reasonably determined that such Major Investor is a Competitor of the Company, at such Major Investor’s expense, to visit and inspect the Company’s properties at mutually convenient times and with sufficient prior written notice to the Company of such planned visit, which notice shall be at least 45 days prior to such planned visit; examine its books of account and records; and discuss the Company’s affairs, finances, and accounts with its officers, during normal business hours of the Company as may be reasonably requested by the Major Investor; *provided, however*, that the Company shall not be obligated pursuant to this Section 3.2 to provide access to any information that it reasonably and in good faith considers to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company) or the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

### 3.3 Observer Rights.

(a) As long as Atlas owns not less than 25% of the shares of the Preferred Stock owned by it on or after the date hereof, including shares of Series B Preferred Stock it is purchasing under the Purchase Agreement (or an equivalent amount of Common Stock issued upon conversion thereof), the Company shall invite a representative of Atlas to attend all meetings of the Board of Directors (and any committee thereof) in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors; *provided, however*, that such representative shall agree to hold in confidence all information so provided; and *provided further*, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest. The Company shall reimburse the Atlas representative for all reasonable out-of-pocket travel expenses incurred (consistent with the Company's travel policy) in connection with attending meetings of the Board of Directors.

(b) As long as Northpond owns not less than 25% of the shares of the Preferred Stock owned by it on or after the date hereof, including shares of Series B Preferred Stock it is purchasing under the Purchase Agreement (or an equivalent amount of Common Stock issued upon conversion thereof), the Company shall invite a representative of Northpond to attend all meetings of the Board of Directors (and any committee thereof) in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors; *provided, however*, that such representative shall agree to hold in confidence all information so provided; and *provided further*, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest. The Company shall reimburse the Northpond representative for all reasonable out-of-pocket travel expenses incurred (consistent with the Company's travel policy) in connection with attending meetings of the Board of Directors.

(c) As long as Hatteras owns not less than 25% of the shares of the Preferred Stock owned by it on or after the date hereof, including shares of Series B Preferred Stock it is purchasing under the Purchase Agreement (or an equivalent amount of Common Stock issued upon conversion thereof), the Company shall invite a representative of Hatteras to attend all meetings of the Board of Directors (and any committee thereof) in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors; *provided, however*, that such representative shall agree to hold in confidence all information so provided; and *provided further*, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest. The Company shall reimburse the Hatteras representative for all reasonable out-of-pocket travel expenses incurred (consistent with the Company's travel policy) in connection with attending meetings of the Board of Directors.

(d) As long as Vida owns not less than 25% of the shares of the Preferred Stock owned by it on or after the date hereof, including shares of Series B Preferred Stock it is purchasing under the Purchase Agreement (or an equivalent amount of Common Stock issued upon conversion thereof), the Company shall invite a representative of Vida to attend all meetings of the Board of Directors (and any committee thereof) in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at



the same time and in the same manner as provided to such directors; *provided, however*, that such representative shall agree to hold in confidence all information so provided; and *provided further*, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest. The Company shall reimburse the Vida representative for all reasonable out-of-pocket travel expenses incurred (consistent with the Company's travel policy) in connection with attending meetings of the Board of Directors.

(e) As long as Lightstone owns not less than 25% of the shares of the Preferred Stock owned by it on or after the date hereof, including shares of Series B Preferred Stock it is purchasing under the Purchase Agreement (or an equivalent amount of Common Stock issued upon conversion thereof), the Company shall invite a representative of Lightstone, initially Christina Isacson, to attend all meetings of the Board of Directors (and any committee thereof) in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors; *provided, however*, that such representative shall agree to hold in confidence all information so provided; and *provided further*, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest. The Company shall reimburse the Lightstone representative for all reasonable out-of-pocket travel expenses incurred (consistent with the Company's travel policy) in connection with attending meetings of the Board of Directors.

(f) As long as Surveyor owns not less than 25% of the shares of the Preferred Stock owned by it on or after the date hereof, including shares of Series B Preferred Stock it is purchasing under the Purchase Agreement (or an equivalent amount of Common Stock issued upon conversion thereof), the Company shall invite a representative of Surveyor, initially Isai Peimer, to attend all meetings of the Board of Directors (and any committee thereof) in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors; *provided, however*, that such representative shall agree to hold in confidence all information so provided; and *provided further*, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest. The Company shall reimburse the Surveyor representative for all reasonable out-of-pocket travel expenses incurred (consistent with the Company's travel policy) in connection with attending meetings of the Board of Directors.

**3.4 Termination of Information and Observer Rights.** The covenants set forth in Sections 3.1, 3.2, and 3.3 shall terminate and be of no further force or effect immediately prior to (i) the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) the closing of a Deemed Liquidation Event, as such term is defined in the Certificate of Incorporation, whichever event occurs first; provided, that, with respect to clause (iii), the covenants set forth in this Section 3.1 shall only terminate if the consideration received by the Investors in such Deemed Liquidation Event is in the form of cash and/or publicly traded securities. or if the Investors receive financial information from the acquiring company or other successor to the Company comparable to those set forth in Section 3.1.

**3.5 Confidentiality.** Each Investor agrees that such Investor will keep confidential and will not disclose, divulge, or use for any purpose (other than to monitor or make decisions with respect to its investment in the Company) any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company's intention to file a registration statement), unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Section 3.5 by such Investor), (b) is or has been independently developed or conceived by such Investor without use of the Company's confidential information, or (c) is or has been made known or disclosed to such Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company; *provided, however,* that an Investor may disclose confidential information (i) to its attorneys, accountants, consultants, and other professionals to the extent reasonably necessary to obtain their services in connection with monitoring its investment in the Company; (ii) to any prospective purchaser of any Registrable Securities from such Investor, if such prospective purchaser agrees to be bound by the provisions of this Section 3.5, *provided* that the Board of Directors has not reasonably determined that such prospective purchaser is a Competitor of the Company; (iii) to any existing or prospective Affiliate, partner, member, stockholder, or wholly owned subsidiary of such Investor in the ordinary course of business, *provided* that such Investor informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; (iv) to the extent required in connection with any routine or periodic examination or similar process by any regulatory or self-regulatory body or authority not specifically directed at the Company or the confidential information obtained from the Company pursuant to the terms of the Agreement, including, without limitation, quarterly or annual reports, or (v) as may otherwise be required by law, regulation, rule, court order or subpoena, *provided* that, with respect to this clause (v), such Investor promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

**3.6 Material Non-Public Information.** The Company understands and acknowledges that in the regular course of Surveyor's businesses, Surveyor and its Affiliates will invest in companies that have issued securities that are publicly traded (each, a "Public Company"). Accordingly, the Company covenants and agrees that before providing any material non-public information about a Public Company ("Public Company Information") to Surveyor or its representatives (or any of their respective Affiliates), the Company shall provide written notice of such Public Company Information to Surveyor's compliance officer at [SCComplianceAppvl@citadel.com](mailto:SCComplianceAppvl@citadel.com) describing such Public Company Information in reasonable detail. The Company shall not disclose Public Company Information to Surveyor or its representatives (or any of their respective Affiliates) without prior written authorization from Surveyor's compliance officer listed above. In addition, the Company acknowledges and agrees that in no event shall Surveyor's confidentiality and non-use obligations hereunder in any manner be deemed or construed as limiting Surveyor or its representatives (or any of their respective Affiliates) ability to trade any security of a Public Company or any other Person.

#### **4. Rights to Future Stock Issuances.**

**4.1 Right of First Offer.** Subject to the terms and conditions of this Section 4.1 and applicable securities laws, if the Company proposes to offer or sell any New Securities, the Company shall first offer such New Securities to each Major Investor. A Major Investor shall be entitled to apportion the right of first offer hereby granted to it in such proportions as it deems appropriate, among (i) itself, (ii) its Affiliates, and (iii) its benefit interest holders, such as limited partners, members or any other Person having a "beneficial ownership," such as term is defined in Rule 13d-3 promulgated under the Exchange Act, of such Major Investor ("**Investor Beneficial Owners**"); *provided* that each such Affiliate or Investor Beneficial owner (x) is not a Competitor of the Company or a FOIA Party, unless such party's purchase of New Securities is otherwise consented to by the Board of Directors, (y) agrees to enter into this Agreement and each of the Amended and Restated Voting Agreement and the Amended and Restated Right of First Refusal and Co-Sale Agreement of even date herewith among the Company, the Major Investors and the other parties named therein, as an "**Investor**" under each such agreement (*provided* that any Competitor or FOIA Party shall not be entitled to any rights as a Major Investor under Sections 3.1, 3.2 and 4.1 hereof), and (z) agrees to purchase at least such number of New Securities as are allocable hereunder to the Major Investor holding the fewest number of Preferred Stock and any other Derivative Securities.

(a) The Company shall give notice (the “Offer Notice”) to each Major Investor, stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such New Securities.

(b) By notification to the Company within 20 days after the Offer Notice is given, each Major Investor may elect to purchase or otherwise acquire, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the Common Stock then held by such Major Investor (including all shares of Common Stock then issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held by such Major Investor) bears to the total Common Stock of the Company then outstanding (assuming full conversion and/or exercise, as applicable, of all Preferred Stock and any other Derivative Securities then outstanding and including any shares of Common Stock reserved for issuance under the Company’s equity incentive plans or similar arrangements). At the expiration of such 20 day period, the Company shall promptly notify each Major Investor that elects to purchase or acquire all the shares available to it (each, a “Fully Exercising Investor”) of any other Major Investor’s failure to do likewise. During the 10 day period commencing after the Company has given such notice, each Fully Exercising Investor may, by giving notice to the Company, elect to purchase or acquire, in addition to the number of shares specified above, up to that portion of the New Securities for which Major Investors were entitled to subscribe but that were not subscribed for by the Major Investors which is equal to the proportion that the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of Preferred Stock and any other Derivative Securities then held, by such Fully Exercising Investor bears to the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held, by all Fully Exercising Investors who wish to purchase such unsubscribed shares. The closing of any sale pursuant to this Section 4.1(b) shall occur within the later of 90 days of the date that the Offer Notice is given and the date of initial sale of New Securities pursuant to Section 4.1(c).

(c) If all New Securities referred to in the Offer Notice are not elected to be purchased or acquired as provided in Section 4.1(b), the Company may, during the 90 day period following the expiration of the periods provided in Section 4.1(b), offer and sell the remaining unsubscribed portion of such New Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within 30 days of the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Major Investors in accordance with this Section 4.1.

(d) The right of first offer in this Section 4.1 shall not be applicable to (i) Exempted Securities (as defined in the Certificate of Incorporation); (ii) shares of Common Stock issued in the IPO; and (iii) the issuance of shares of Preferred Stock pursuant the Purchase Agreement.

**4.2 Termination.** The covenants set forth in Section 4.1 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon the closing of a Deemed Liquidation Event, as such term is defined in the Certificate of Incorporation, whichever event occurs first.

## 5. Additional Covenants.

**5.1 Insurance.** The Company will obtain within 90 days of Closing, from financially sound and reputable insurers, Directors and Officers liability insurance and term “key-person” insurance on Ivana Magovcevic-Liebisch, each in an amount and on terms and conditions satisfactory to the Board of Directors, including the Requisite Preferred Directors, and will use commercially reasonable efforts to cause such insurance policies to be maintained until such time as the Board of Directors, including the Requisite Preferred Directors then serving, determines that such insurance should be discontinued. The key-person policy shall name the Company as loss payee, and neither policy shall be cancelable by the Company without prior approval by the Board of Directors, including the Requisite Preferred Directors. Notwithstanding any other provision of this Section 5.1 to the contrary, for so long as Preferred Directors are then serving on the Board of Directors, the Company shall not cease to maintain a Directors and Officers liability insurance policy in an amount of at least \$3,000,000 unless approved by the Requisite Preferred Directors then serving, and the Company shall annually, upon request, deliver to the Investors a certification that such a Directors and Officers liability insurance policy remains in effect.

**5.2 Employee Agreements.** Unless otherwise approved by the Board of Directors, including the Requisite Preferred Directors, the Company will cause (i) each Person now or hereafter employed by it or by any subsidiary (or engaged by the Company or any subsidiary as a consultant/independent contractor) with access to confidential information and/or trade secrets to enter into a nondisclosure and proprietary rights assignment agreement; and (ii) each Key Employee to enter into a one year non-competition and non-solicitation agreement, in a form acceptable to the Board of Directors, including the Requisite Preferred Directors.

**5.3 Employee Stock.** Unless otherwise approved by the Board of Directors, including the Requisite Preferred Directors, all future employees and consultants of the Company who purchase, receive options to purchase, or receive awards of shares of the Company’s capital stock after the date hereof shall be required to execute restricted stock or option agreements, as applicable, providing for (i) vesting of shares over a four year period, with the first 25% of such shares vesting following 12 months of continued employment or service, and the remaining shares vesting in equal monthly installments over the following 36 months, and (ii) a market stand-off provision substantially similar to that in Section 2.11. Without the prior approval by the Board of Directors, including the Requisite Preferred Director the Company shall not amend, modify, terminate, waive or otherwise alter, in whole or in part, any stock purchase, stock restriction or option agreement with any existing employee or service provider if such amendment would cause it to be inconsistent with this Section 5.3. In addition, unless otherwise approved by the Board of Directors, including the Requisite Preferred Directors, the Company shall retain (and not waive) a “right of first refusal” on employee transfers until the IPO and shall have the right to repurchase unvested shares at cost upon termination of employment of a holder of restricted stock.

### 5.4 Reserved.

**5.5 Board Matters.** Unless otherwise determined by the vote of a majority of the directors then in office (including the Requisite Preferred Directors), the Board of Directors shall meet at least quarterly in accordance with an agreed- upon schedule. The Company shall reimburse the directors for all reasonable out-of-pocket travel expenses incurred (consistent with the Company’s travel policy) in connection with attending meetings of the Board of Directors. Each Preferred Director then serving shall be entitled in such person’s discretion to be a member of all committees of the Board of Directors.

**5.6 Successor Indemnification.** If the Company or any of its successors or assignees consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger, then to the extent necessary, proper provision shall be made so that the successors and assignees of the Company assume the obligations of the Company with respect to indemnification of members of the Board of Directors as in effect immediately before such transaction, whether such obligations are contained in the Company's Bylaws, the Certificate of Incorporation, or elsewhere, as the case may be.

**5.7 Expenses of Counsel.** In the event of a transaction which is a Sale of the Company (as defined in the Amended and Restated Voting Agreement of even date herewith among the Investors, the Company and other parties named therein), the reasonable fees and disbursements, not to exceed \$75,000 of one counsel for the Investors ("**Investor Counsel**"), in their capacities as stockholders, shall be borne and paid by the Company. At the outset of considering a transaction which, if consummated would constitute a Sale of the Company, the Company shall obtain the ability to share with the Investor Counsel (and such counsel's clients) and shall share the confidential information (including, without limitation, the initial and all subsequent drafts of memoranda of understanding, letters of intent and other transaction documents and related noncompete, employment, consulting and other compensation agreements and plans) pertaining to and memorializing any of the transactions which, individually or when aggregated with others would constitute the Sale of the Company. The Company shall be obligated to share (and cause the Company's counsel and investment bankers to share) such materials when distributed to the Company's executives and/or any one (1) or more of the other parties to such transaction(s). In the event that Investor Counsel deems it appropriate, in its reasonable discretion, to enter into a joint defense (or common interest) agreement or other arrangement to enhance the ability of the parties to protect their communications and other reviewed materials under the attorney client privilege, the Company shall, and shall direct its counsel to, execute and deliver to Investor Counsel and its clients such an agreement in form and substance reasonably acceptable to Investor Counsel and the Company's counsel. In the event that one (1) or more of the other party or parties to such transactions require the clients of Investor Counsel to enter into a confidentiality agreement and/or joint defense (or common interest) agreement in order to receive such information, then the Company shall share whatever information can be shared without entry into such agreement and shall, at the same time, in good faith work expeditiously to enable Investor Counsel and its clients to negotiate and enter into the appropriate agreement(s) without undue burden to the clients of Investor Counsel.

**5.8 Indemnification Matters.** The Company hereby acknowledges that one or more of the directors nominated to serve on the Board of Directors by the Investors (each an "**Investor Director**") may have certain rights to indemnification, advancement of expenses and/or insurance provided by one or more of the Investors and certain of their Affiliates (collectively, the "**Investor Indemnitors**"). The Company hereby agrees (a) that it is the indemnitor of first resort (*i.e.*, its obligations to any such Investor Director are primary and any obligation of the Investor Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by such Investor Director are secondary), (b) that it shall be required to advance the full amount of expenses incurred by such Investor Director and shall be liable for the full amount of all expenses, judgments, penalties, fines and amounts paid in settlement by or on behalf of any such Investor Director to the extent legally permitted and as required by the Company's Certificate of Incorporation or Bylaws of the Company (or any agreement between the Company and such Investor Director), without regard to any rights such Investor Director may have against the Investor Indemnitors, and, (c) that it irrevocably waives, relinquishes and releases the Investor Indemnitors from any and all claims against the Investor Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Investor Indemnitors on behalf of any such Investor Director with respect to any claim for which such Investor Director has sought indemnification from the Company shall affect the foregoing and the Investor Indemnitors shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of such Investor Director against the Company. The Investor Directors and the Investor Indemnitors are intended third-party beneficiaries of this Section 5.7 and shall have the right, power and authority to enforce the provisions of this Section 5.7 as though they were a party to this Agreement.

**5.9 Right to Conduct Activities.** The Company hereby agrees and acknowledges that each of Investor (together with their respective Affiliates) that is a professional investment organization reviews the business plans and related proprietary information of many enterprises, some of which may compete directly or indirectly with the Company's business (as currently conducted or as currently propose to be conducted). Nothing in this Agreement shall preclude or in any way restrict such Investors from evaluating or purchasing securities, including publicly traded securities, of a particular enterprise, or investing or participating in any particular enterprise whether or not such enterprise has products or services which compete with those of the Company; and the Company hereby agrees that, to the extent permitted under applicable law, such Investors (and their respective Affiliates) shall not be liable to the Company for any claim arising out of, or based upon, (i) the investment by such Investors (or their respective Affiliates) in any entity competitive with the Company, or (ii) actions taken by any partner, officer, employee or other representative of such Investors (or their respective Affiliates) to assist any such competitive company, whether or not such action was taken as a member of the board of directors of such competitive company or otherwise, and whether or not such action has a detrimental effect on the Company; provided, however, that the foregoing shall not relieve (x) any of the Investors from liability associated with the unauthorized disclosure of the Company's confidential information obtained pursuant to this Agreement, or (y) any director or officer of the Company from any liability associated with his or her fiduciary duties to the Company.

**5.10 Side Letters.** The Company agrees and covenants that it will promptly notify (and provide a copy to) each Investor if it enters into any separate agreements or side letters with any other shareholder of the Company or an affiliate or any such shareholder (other than the Transaction Agreements as defined in the Purchase Agreement and employment related agreements made in the ordinary course).

**5.11 Cybersecurity.** The Company shall, within one hundred eighty (180) days following the Closing (as defined in the Purchase Agreement), use commercially reasonable efforts to (a) identify and restrict access (including through physical and/or technical controls) to the Company's confidential business information and trade secrets and any information about identified or identifiable natural persons maintained by or on behalf of the Company (collectively, "**Protected Data**") to those individuals who have a need to access it and (b) implement reasonable physical, technical and administrative safeguards ("**Cybersecurity Solutions**") designed to protect the confidentiality, integrity and availability of its technology and systems (including servers, laptops, desktops, cloud, containers, virtual environments and data centers) and all Protected Data. The Company shall use commercially reasonable efforts to ensure that the Cybersecurity Solutions and (x) are up-to-date and include industry-standard protections (e.g., antivirus, endpoint detection and response and threat hunting), (y) to the extent determined necessary by the Company or the Board of Directors, are backed by a breach prevention warranty from the vendor certifying the effectiveness of such solutions. The Company shall evaluate on a periodic basis at least annually whether such safeguards should be updated to maintain a level of security appropriate to the risk posed to Company systems and Protected Data. The Company shall educate its employees about the proper use and storage of Protected Data, including periodic training as determined reasonably necessary by the Company or the Board of Directors.

**5.12 Anti-Harassment.** The Company shall, within a reasonable time following the Closing, adopt and thereafter maintain in effect (i) a Code of Conduct governing appropriate workplace behavior and (ii) an Anti-Harassment and Discrimination Policy prohibiting discrimination and harassment at the Company. Such policy shall be reviewed and approved by the Board of Directors (including each Preferred Director).

**5.13 Termination of Covenants.** The covenants set forth in this Section 5, except for Sections 5.6, 5.7 and 5.8, shall terminate and be of no further force or effect immediately before (i) the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) a Deemed Liquidation Event, as such term is defined in the Certificate of Incorporation, whichever event occurs first.

## **6. Miscellaneous.**

**6.1 Successors and Assigns.** The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that (a) is an Affiliate of a Holder; (b) is a Holder's Immediate Family Member or trust for the benefit of an individual Holder or one or more of such Holder's Immediate Family Members; or (c) after such transfer, holds at least 1,300,000 shares of Registrable Securities (subject to appropriate adjustment for stock splits, stock dividends, combinations, and other recapitalizations); *provided, however*, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including the provisions of Section 2.11. For the purposes of determining the number of shares of Registrable Securities held by a transferee, the holdings of a transferee (i) that is an Affiliate or stockholder of a Holder; (ii) who is a Holder's Immediate Family Member; or (iii) that is a trust for the benefit of an individual Holder or such Holder's Immediate Family Member shall be aggregated together and with those of the transferring Holder; *provided further* that all transferees who would not qualify individually for assignment of rights shall, as a condition to the applicable transfer, establish a single attorney-in-fact for the purpose of exercising any rights, receiving notices, or taking any action under this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

**6.2 Governing Law.** This Agreement shall be governed by the internal law of the State of Delaware, without regard to conflict of law principles that would result in the application of any law other than the law of the State of Delaware.

**6.3 Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, the Uniform Electronic Transactions Act or other applicable law) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

**6.4 Titles and Subtitles.** The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

### **6.5 Notices.**

(a) All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or (i) personal delivery to the party to be notified; (ii) when sent, if sent by electronic mail or facsimile during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (iii) five days after having been sent by registered or certified mail, return receipt

requested, postage prepaid; or (iv) one business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on **Schedule A** hereto, or to the principal office of the Company and to the attention of the Chief Executive Officer, in the case of the Company, or to such email address, facsimile number, or address as subsequently modified by written notice given in accordance with this Section 6.5. If notice is given to the Company, it shall be sent to 300 Technology Sq. 8th Floor, Cambridge, Massachusetts 02139, *Attention: Ivana Magovcevic-Liebisch*; and a copy (which shall not constitute notice) shall also be sent to Goodwin Procter LLP, 100 Northern Avenue, Boston, MA 02210, *Attention: Kingsley L. Taft* and if notice is given to Investors, a copy (which shall not constitute notice) shall also be given to Wilson Sonsini Goodrich & Rosati, P.C., 28 State Street, 37th Floor, Boston, MA 02109, *Attention: Jennifer Fang, jfang@wsgr.com*.

**(b) Consent to Electronic Notice.** Each Investor consents to the delivery of any stockholder notice pursuant to the Delaware General Corporation Law (the “**DGCL**”), as amended or superseded from time to time, by electronic transmission pursuant to Section 232 of the DGCL (or any successor thereto) at the electronic mail address or the facsimile number set forth below such Investor’s name on the Schedules hereto, as updated from time to time by notice to the Company, or as on the books of the Company. To the extent that any notice given by means of electronic transmission is returned or undeliverable for any reason, the foregoing consent shall be deemed to have been revoked until a new or corrected electronic mail address has been provided, and such attempted electronic notice shall be ineffective and deemed to not have been given. Each Investor agrees to promptly notify the Company of any change in such stockholder’s electronic mail address, and that failure to do so shall not affect the foregoing.

**6.6 Amendments and Waivers.** Any term of this Agreement may be amended, modified or terminated and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Company and the holders of a majority of the shares of Common Stock issued or issuable upon conversion of the then outstanding shares of Preferred Stock held by the Investors (voting as a single separate class and on an as-converted to Common Stock basis), *provided* that the Company may in its sole discretion waive compliance with Section 2.12(c) (and the Company’s failure to object promptly in writing after notification of a proposed assignment allegedly in violation of Section 2.12(c) shall be deemed to be a waiver); and *provided further* that any provision hereof may be waived by any waiving party on such party’s own behalf, without the consent of any other party. Notwithstanding the foregoing, (a) this Agreement may not be amended, modified or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, modification, termination, or waiver applies to all Investors in the same fashion (it being agreed that a waiver of the provisions of Section 4 with respect to a particular transaction shall be deemed to apply to all Investors in the same fashion if such waiver does so by its terms, notwithstanding the fact that certain Investors may nonetheless, by agreement with the Company, purchase securities in such transaction), (b) Sections 3.1 and 3.2, Section 4 and any other section of this Agreement applicable to the Major Investors (including clause (b) of this Section 6.6.) may be amended, modified, terminated or waived with only the written consent of the Company and the holders of a majority of the Registrable Securities then outstanding and held by the Major Investors, (c) Sections 3.3(a) and clause (c) of this Section 6.6 may only be amended or waived with the prior written consent of Atlas, (d) Section 3.3(b) and clause (d) of this Section 6.6 may only be amended, or waived with the prior written consent of Northpond, (e) Section 3.3(c) and clause (e) of this Section 6.6 may only be amended or waived with the prior written consent of Hatteras (f) Section 3.3(d) and clause (f) of this Section 6.6 may only be amended or waived with the prior written consent of Vida, (g) Section 3.3(e) and clause (g) of this Section 6.6 may only be amended or waived with the prior written consent of Lightstone, (h) Sections 3.3(f), 3.6 and clause (h) of this Section 6.6 may only be amended or waived with the prior written consent of Surveyor, (i) Section 1.21 may not be amended to increase the number of shares



set forth therein without the prior written consent of each Investor that would no longer qualify as a Major Investor as a result of such amendment, and (j) Sections 1.7, 5.9, and 5.10 may not be amended or waived with respect to an Investor without the prior written consent of such Investor. Notwithstanding the foregoing, **Schedule A** hereto may be amended by the Company from time to time to add transferees of any Registrable Securities in compliance with the terms of this Agreement without the consent of the other parties; and **Schedule A** hereto may also be amended by the Company after the date of this Agreement without the consent of the other parties to add information regarding any additional Investor who becomes a party to this Agreement in accordance with Section 6.9. The Company shall give prompt notice of any amendment, modification or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, modification, termination, or waiver. Any amendment, modification, termination, or waiver effected in accordance with this Section 6.6 shall be binding on all parties hereto, regardless of whether any such party has consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

**6.7 Severability.** In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

**6.8 Aggregation of Stock.** All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliates may apportion such rights as among themselves in any manner they deem appropriate.

**6.9 Additional Investors.** Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of the Company's Series B Preferred Stock after the date hereof, pursuant to the Purchase Agreement any purchaser of such shares of Series B Preferred Stock may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement, and thereafter shall be deemed an "Investor" for all purposes hereunder. No action or consent by the Investors shall be required for such joinder to this Agreement by such additional Investor, so long as such additional Investor has agreed in writing to be bound by all of the obligations as an "Investor" hereunder.

**6.10 Entire Agreement; Prior Agreement.** This Agreement (including any Schedules and Exhibits hereto) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled. Upon the effectiveness of this Agreement, the Prior Agreement shall be deemed amended and restated and superseded and replaced in its entirety by this Agreement, and shall be of no further force or effect.

**6.11 Dispute Resolution.** The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of the Commonwealth of Massachusetts and to the jurisdiction of the United States District Court for the District of Massachusetts for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the state courts of the Commonwealth of Massachusetts or the United States District Court for the District of Massachusetts, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court.

WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS, THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

**6.12 Delays or Omissions.** No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such nonbreaching or nondefaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

**[Remainder of page Intentionally Left Blank]**

The parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

**COMPANY:**

**VIGIL NEUROSCIENCE, INC.**

By: /s/ Ivana Magovcevic-Liebisch \_\_\_\_\_  
Name: Ivana Magovcevic-Liebisch  
Title: Chief Executive Officer

**VIGIL NEUROSCIENCE, INC.**

**AMENDMENT NO. 2 TO THE  
2020 EQUITY INCENTIVE PLAN**

The Vigil Neuroscience, Inc. 2020 Stock Option and Grant Plan (the “Plan”), is hereby amended as follows:

Section 3(a)(i) of the Plan is hereby amended by deleting it and replacing it with the following:

Subject to Section 9(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards from and after the Effective Date will not exceed 9,389,281 shares (the “Share Reserve”).

ADOPTED BY BOARD OF DIRECTORS: August 12, 2021

ADOPTED BY STOCKHOLDERS: August 12, 2021

1.

AMENDED & RESTATED 2020 EQUITY INCENTIVE PLAN

ADOPTED BY THE BOARD OF DIRECTORS: June 4, 2021

APPROVED BY THE STOCKHOLDERS: June 4, 2021

TERMINATION DATE: September 17, 2030

**1. General.**

**(a) Eligible Stock Award Recipients.** Employees, Directors and Consultants are eligible to receive Stock Awards.

**(b) Available Stock Awards.** The Plan provides for the grant of the following types of Stock Awards: (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) Stock Appreciation Rights, (iv) Restricted Stock Awards, (v) Restricted Stock Unit Awards and (vi) Other Stock Awards.

**(c) Purpose.** The Plan, through the grant of Stock Awards, is intended to help the Company secure and retain the services of eligible award recipients, provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate and provide a means by which the eligible recipients may benefit from increases in value of the Common Stock.

**2. Administration.**

**(a) Administration by the Board.** The Board will administer the Plan. The Board may delegate administration of the Plan to a Committee or Committees, as provided in Section 2(c).

**(b) Powers of the Board.** The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

**(i)** To determine (A) who will be granted Stock Awards; (B) when and how each Stock Award will be granted; (C) what type of Stock Award will be granted; (D) the provisions of each Stock Award (which need not be identical), including when a person will be permitted to exercise or otherwise receive cash or Common Stock under the Stock Award; (E) the number of shares of Common Stock subject to, or the cash value of, a Stock Award; and (F) the Fair Market Value applicable to a Stock Award.

**(ii)** To construe and interpret the Plan and Stock Awards granted under it, and to establish, amend and revoke rules and regulations for administration of the Plan and Stock Awards. The Board, in the exercise of these powers, may correct any defect, omission or inconsistency in the Plan or in any Stock Award Agreement, in a manner and to the extent it will deem necessary or expedient to make the Plan or Stock Award fully effective.

**(iii)** To settle all controversies regarding the Plan and Stock Awards granted under it.

**(iv)** To accelerate, in whole or in part, the time at which a Stock Award may be exercised or vest (or the time at which cash or shares of Common Stock may be issued in settlement thereof).

(v) To suspend or terminate the Plan at any time. Except as otherwise provided in the Plan or a Stock Award Agreement, suspension or termination of the Plan will not impair a Participant's rights under the Participant's then-outstanding Stock Award without the Participant's written consent except as provided in subsection (viii) below.

(vi) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, by adopting amendments relating to Incentive Stock Options and certain nonqualified deferred compensation under Section 409A of the Code and/or bringing the Plan or Stock Awards granted under the Plan into compliance with the requirements for Incentive Stock Options or ensuring that they are exempt from, or compliant with, the requirements for nonqualified deferred compensation under Section 409A of the Code, subject to the limitations, if any, of applicable law. If required by applicable law or listing requirements, and except as provided in Section 9(a) relating to Capitalization Adjustments, the Company will seek stockholder approval of any amendment of the Plan that (A) materially increases the number of shares of Common Stock available for issuance under the Plan, (B) materially expands the class of individuals eligible to receive Stock Awards under the Plan, (C) materially increases the benefits accruing to Participants under the Plan, (D) materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, (E) materially extends the term of the Plan, or (F) materially expands the types of Stock Awards available for issuance under the Plan. Except as otherwise provided in the Plan or a Stock Award Agreement, no amendment of the Plan will materially impair a Participant's rights under an outstanding Stock Award without the Participant's written consent.

(vii) To submit any amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of Section 422 of the Code regarding Incentive Stock Options.

(viii) To approve forms of Stock Award Agreements for use under the Plan and to amend the terms of any one or more Stock Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Stock Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion; *provided however*, that a Participant's rights under any Stock Award will not be impaired by any such amendment unless (A) the Company requests the consent of the affected Participant, and (B) such Participant consents in writing. Notwithstanding the foregoing, (1) a Participant's rights will not be deemed to have been impaired by any such amendment if the Board, in its sole discretion, determines that the amendment, taken as a whole, does not materially impair the Participant's rights, and (2) subject to the limitations of applicable law, if any, the Board may amend the terms of any one or more Stock Awards without the affected Participant's consent (A) to maintain the qualified status of the Stock Award as an Incentive Stock Option under Section 422 of the Code; (B) to change the terms of an Incentive Stock Option, if such change results in impairment of the Stock Award solely because it impairs the qualified status of the Stock Award as an Incentive Stock Option under Section 422 of the Code; (C) to clarify the manner of exemption from, or to bring the Stock Award into compliance with, Section 409A of the Code; or (D) to comply with other applicable laws.

(ix) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Stock Awards.

(x) To adopt such procedures and sub-plans as are necessary or appropriate to permit participation in the Plan by Employees, Directors or Consultants who are foreign nationals or employed outside the United States (provided that Board approval will not be necessary for immaterial modifications to the Plan or any Stock Award Agreement that are required for compliance with the laws of the relevant foreign jurisdiction).

(xi) To effect, with the consent of any adversely affected Participant, (A) the reduction of the exercise, purchase or strike price of any outstanding Stock Award; (B) the cancellation of any outstanding Stock Award and the grant in substitution therefor of a new (1) Option or SAR, (2) Restricted Stock Award, (3) Restricted Stock Unit Award, (4) Other Stock Award, (5) cash and/or (6) other valuable consideration determined by the Board, in its sole discretion, with any such substituted award (x) covering the same or a different number of shares of Common Stock as the cancelled Stock Award and (y) granted under the Plan or another equity or compensatory plan of the Company; or (C) any other action that is treated as a repricing under generally accepted accounting principles.

(c) **Delegation to Committee.** The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee, as applicable). Any delegation of administrative powers will be reflected in resolutions, not inconsistent with the provisions of the Plan, adopted from time to time by the Board or Committee (as applicable). The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revert in the Board some or all of the powers previously delegated.

(d) **Delegation to an Officer.** The Board may delegate to one or more Officers the authority to do one or both of the following: (i) designate Employees who are not Officers to be recipients of Options and SARs (and, to the extent permitted by applicable law, other Stock Awards) and, to the extent permitted by applicable law, the terms of such Stock Awards, and (ii) determine the number of shares of Common Stock to be subject to such Stock Awards granted to such Employees; *provided, however*, that the Board resolutions regarding such delegation will specify the total number of shares of Common Stock that may be subject to the Stock Awards granted by such Officer and that such Officer may not grant a Stock Award to himself or herself. Any such Stock Awards will be granted on the form of Stock Award Agreement most recently approved for use by the Committee or the Board, unless otherwise provided in the resolutions approving the delegation authority. The Board may not delegate authority to an Officer who is acting solely in the capacity of an Officer (and not also as a Director) to determine the Fair Market Value pursuant to Section 13(t) below.

(e) **Effect of Board's Decision.** All determinations, interpretations and constructions made by the Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

### 3. Shares Subject to the Plan.

#### (a) Share Reserve.

(i) Subject to Section 9(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards from and after the Effective Date will not exceed 5,889,281 shares (the "**Share Reserve**").

(ii) For clarity, the Share Reserve in this Section 3(a) is a limitation on the number of shares of Common Stock that may be issued pursuant to the Plan. Accordingly, this Section 3(a) does not limit the granting of Stock Awards except as provided in Section 7(a).

**(b) Reversion of Shares to the Share Reserve.** If a Stock Award or any portion thereof (i) expires or otherwise terminates without all of the shares covered by such Stock Award having been issued or (ii) is settled in cash (*i.e.*, the Participant receives cash rather than stock), such expiration, termination or settlement will not reduce (or otherwise offset) the number of shares of Common Stock that may be available for issuance under the Plan. If any shares of Common Stock issued pursuant to a Stock Award are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required to vest such shares in the Participant, then the shares that are forfeited or repurchased will revert to and again become available for issuance under the Plan. Any shares reacquired by the Company in satisfaction of tax withholding obligations on a Stock Award or as consideration for the exercise or purchase price of a Stock Award will again become available for issuance under the Plan.

**(c) Incentive Stock Option Limit.** Subject to the Share Reserve and Section 9(a) relating to Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options will be 17,667,843.

**(d) Source of Shares.** The stock issuable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

#### **4. Eligibility.**

**(a) Eligibility for Specific Stock Awards.** Incentive Stock Options may be granted only to employees of the Company or a “parent corporation” or “subsidiary corporation” thereof (as such terms are defined in Sections 424(e) and 424(f) of the Code). Stock Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants; *provided, however*, that Stock Awards may not be granted to Employees, Directors and Consultants who are providing Continuous Service only to any “parent” of the Company, as such term is defined in Rule 405, unless (i) the stock underlying such Stock Awards is treated as “service recipient stock” under Section 409A of the Code (for example, because the Stock Awards are granted pursuant to a corporate transaction such as a spin off transaction), (ii) the Company, in consultation with its legal counsel, has determined that such Stock Awards are otherwise exempt from Section 409A of the Code, or (iii) the Company, in consultation with its legal counsel, has determined that such Stock Awards comply with the distribution requirements of Section 409A of the Code.

**(b) Ten Percent Stockholders.** A Ten Percent Stockholder will not be granted an Incentive Stock Option unless the exercise price of such Option is at least 110% of the Fair Market Value on the date of grant and the Option is not exercisable after the expiration of five years from the date of grant.

**(c) Consultants.** A Consultant will not be eligible for the grant of a Stock Award if, at the time of grant, either the offer or sale of the Company’s securities to such Consultant is not exempt under Rule 701 because of the nature of the services that the Consultant is providing to the Company, because the Consultant is not a natural person, or because of any other provision of Rule 701, unless the Company determines that such grant need not comply with the requirements of Rule 701 and will satisfy another exemption under the Securities Act as well as comply with the securities laws of all other relevant jurisdictions.



## 5. Provisions Relating to Options and Stock Appreciation Rights.

Each Option or SAR will be in such form and will contain such terms and conditions as the Board deems appropriate. All Options will be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates will be issued for shares of Common Stock purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, or if an Option is designated as an Incentive Stock Option but some portion or all of the Option fails to qualify as an Incentive Stock Option under the applicable rules, then the Option (or portion thereof) will be a Nonstatutory Stock Option. The provisions of separate Options or SARs need not be identical; *provided, however*, that each Stock Award Agreement will conform to (through incorporation of provisions hereof by reference in the applicable Stock Award Agreement or otherwise) the substance of each of the following provisions:

**(a) Term.** Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, no Option or SAR will be exercisable after the expiration of 10 years from the date of its grant or such shorter period specified in the Stock Award Agreement.

**(b) Exercise Price.** Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, the exercise or strike price of each Option or SAR will be not less than 100% of the Fair Market Value of the Common Stock subject to the Option or SAR on the date the Stock Award is granted. Notwithstanding the foregoing, an Option or SAR may be granted with an exercise or strike price lower than 100% of the Fair Market Value of the Common Stock subject to the Stock Award if such Stock Award is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Corporate Transaction and in a manner consistent with the provisions of Section 409A of the Code and, if applicable, Section 424(a) of the Code. Each SAR will be denominated in shares of Common Stock equivalents.

**(c) Purchase Price for Options.** The purchase price of Common Stock acquired pursuant to the exercise of an Option may be paid, to the extent permitted by applicable law and as determined by the Board in its sole discretion, by any combination of the methods of payment set forth below. The Board will have the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to use a particular method of payment. The permitted methods of payment are as follows:

**(i)** by cash, check, bank draft, electronic funds transfer or money order payable to the Company;

**(ii)** subject to Company and/or Board consent at the time of exercise and provided that at the time of exercise the Common Stock is publicly traded, pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of Common Stock, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds. This manner of payment is also known as a “broker-assisted exercise”, “same day sale”, or “sell to cover”;

**(iii)** subject to Company and/or Board consent at the time of exercise and provided that at the time of exercise the Common Stock is publicly traded, by delivery to the Company (either by actual delivery or attestation) of already-owned shares of Common Stock that are owned free and clear of any liens, claims, encumbrances or security interests, and that are valued at Fair Market Value on the date of exercise. “Delivery” for these purposes, in the sole discretion of the Company and/or the Board, at the time

Participant exercises their Option, will include delivery to the Company of Participant's attestation of ownership of such shares of Common Stock in a form approved by the Company. Participant may not exercise their option by delivery to the Company of Common Stock if doing so would violate the provisions of any law, regulation or agreement restricting the redemption of the Company's stock;

(iv) subject to Company and/or Board consent at the time of exercise, and provided that the Option is a Nonstatutory Stock Option, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issued upon exercise of the Option by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price plus, to the extent permitted by the Company and/or Board at the time of exercise, the aggregate withholding obligations in respect of the Option exercise; provided, further that Participant must pay any remaining balance of the aggregate exercise price not satisfied by the "net exercise" in cash or other permitted form of payment. Shares of Common Stock will no longer be subject to the Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are used to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations;

(v) according to a deferred payment or similar arrangement with the Optionholder; *provided, however*, that interest will compound at least annually and will be charged at the minimum rate of interest necessary to avoid (A) the imputation of interest income to the Company and compensation income to the Optionholder under any applicable provisions of the Code, and (B) the classification of the Option as a liability for financial accounting purposes; or

(vi) in any other form of legal consideration that may be acceptable to the Board.

**(d) Exercise and Payment of a SAR.** To exercise any outstanding SAR, the Participant must provide written notice of exercise to the Company in compliance with the provisions of the Stock Appreciation Right Agreement evidencing such SAR. The appreciation distribution payable on the exercise of a SAR will be not greater than an amount equal to the excess of (A) the aggregate Fair Market Value (on the date of the exercise of the SAR) of a number of shares of Common Stock equal to the number of Common Stock equivalents in which the Participant is vested under such SAR, and with respect to which the Participant is exercising the SAR on such date, over (B) the aggregate strike price of the number of Common Stock equivalents with respect to which the Participant is exercising the SAR on such date. The appreciation distribution may be paid in Common Stock, in cash, in any combination of the two or in any other form of consideration, as determined by the Board and contained in the Stock Award Agreement evidencing such SAR.

**(e) Transferability of Options and SARs.** The Board may, in its sole discretion, impose such limitations on the transferability of Options and SARs as the Board will determine. In the absence of such a determination by the Board to the contrary, the following restrictions on the transferability of Options and SARs will apply:

**(i) Restrictions on Transfer.** An Option or SAR will not be transferable except by will or by the laws of descent and distribution (or pursuant to subsections (ii) and (iii) below), and will be exercisable during the lifetime of the Participant only by the Participant. The Board may permit transfer of the Option or SAR in a manner that is not prohibited by applicable tax and securities laws. Except as explicitly provided in the Plan, neither an Option nor a SAR may be transferred for consideration.

**(ii) Domestic Relations Orders.** Subject to the approval of the Board or a duly authorized Officer, an Option or SAR may be transferred pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by Treasury Regulation 1.421-1(b)(2). If an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

**(iii) Beneficiary Designation.** Subject to the approval of the Board or a duly authorized Officer, a Participant may, by delivering written notice to the Company, in a form approved by the Company (or the designated broker), designate a third party who, upon the death of the Participant, will thereafter be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, upon the death of the Participant, the executor or administrator of the Participant's estate will be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. However, the Company may prohibit designation of a beneficiary at any time, including due to any conclusion by the Company that such designation would be inconsistent with the provisions of applicable laws.

**(f) Vesting Generally.** The total number of shares of Common Stock subject to an Option or SAR may vest and therefore become exercisable in periodic installments that may or may not be equal. The Option or SAR may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which may be based on the satisfaction of performance goals or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options or SARs may vary. The provisions of this Section 5(f) are subject to any Option or SAR provisions governing the minimum number of shares of Common Stock as to which an Option or SAR may be exercised.

**(g) Termination of Continuous Service.** Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates (other than for Cause and other than upon the Participant's death or Disability), the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Stock Award as of the date of termination of Continuous Service) within the period of time ending on the earlier of (i) the date three months following the termination of the Participant's Continuous Service (or such longer or shorter period specified in the applicable Stock Award Agreement, which period will not be less than 30 days if necessary to comply with applicable laws unless such termination is for Cause) and (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR (as applicable) within the applicable time frame, the Option or SAR will terminate.

**(h) Extension of Termination Date.** If the exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause and other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option or SAR will terminate on the earlier of (i) the expiration of a total period of time (that need not be consecutive) equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of such registration requirements, and (ii) the expiration of the term of the Option or SAR as set forth in the applicable Stock Award Agreement. In addition, unless otherwise provided in a Participant's Stock Award Agreement, if the sale of any Common Stock received upon exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause) would violate the Company's insider trading policy, then the Option or SAR will terminate on the earlier of (i) the expiration of the period of time (that need not be consecutive) equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the sale of the Common Stock received upon exercise of the Option or SAR would not be in violation of the Company's insider trading policy, and (ii) the expiration of the term of the Option or SAR as set forth in the applicable Stock Award Agreement.

**(i) Disability of Participant.** Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date 12 months following such termination of Continuous Service (or such longer or shorter period specified in the Stock Award Agreement, which period will not be less than six months if necessary to comply with applicable laws unless such termination is for Cause), and (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the applicable time frame, the Option or SAR (as applicable) will terminate.

**(j) Death of Participant.** Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company, if (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the period (if any) specified in the Stock Award Agreement for exercisability after the termination of the Participant's Continuous Service (for a reason other than death), then the Option or SAR may be exercised (to the extent the Participant was entitled to exercise such Option or SAR as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Option or SAR by bequest or inheritance or by a person designated to exercise the Option or SAR upon the Participant's death, but only within the period ending on the earlier of (i) the date 18 months following the date of death (or such longer or shorter period specified in the Stock Award Agreement, which period will not be less than six months if necessary to comply with applicable laws unless such termination is for Cause), and (ii) the expiration of the term of such Option or SAR as set forth in the Stock Award Agreement. If, after the Participant's death, the Option or SAR is not exercised within the applicable time frame, the Option or SAR (as applicable) will terminate.

**(k) Termination for Cause.** Except as explicitly provided otherwise in a Participant's Stock Award Agreement or other individual written agreement between the Company or any Affiliate and the Participant, if a Participant's Continuous Service is terminated for Cause, the Option or SAR will terminate immediately upon such Participant's termination of Continuous Service, and the Participant will be prohibited from exercising his or her Option or SAR (whether vested or unvested) from and after the date of such termination of Continuous Service.

**(l) Non-Exempt Employees.** If an Option or SAR is granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, the Option or SAR will not be first exercisable for any shares of Common Stock until at least six months following the date of grant of the Option or SAR (although the Stock Award may vest prior to such date). Consistent with the provisions of the Worker Economic Opportunity Act, (i) if such non-exempt Employee dies or suffers a Disability, (ii) upon a Corporate Transaction in which such Option or SAR is not assumed, continued, or substituted, (iii) upon a Change in Control, or (iv) upon the Participant's retirement (as such term may be defined in the Participant's Stock Award Agreement, in another agreement between the Participant and the Company, or, if no such definition, in accordance with the Company's then current employment policies and guidelines), the vested portion of any Options and SARs may be exercised earlier than six months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option or SAR will be exempt

from his or her regular rate of pay. To the extent permitted and/or required for compliance with the Worker Economic Opportunity Act to ensure that any income derived by a non-exempt employee in connection with the exercise, vesting or issuance of any shares under any other Stock Award will be exempt from the employee's regular rate of pay, the provisions of this Section 5(l) will apply to all Stock Awards and are hereby incorporated by reference into such Stock Award Agreements.

**(m) Early Exercise of Options.** An Option may, but need not, include a provision whereby the Optionholder may elect at any time before the Optionholder's Continuous Service terminates to exercise the Option as to any part or all of the shares of Common Stock subject to the Option prior to the full vesting of the Option. Subject to the "Repurchase Limitation" in Section 8(l), any unvested shares of Common Stock so purchased may be subject to a repurchase right in favor of the Company or to any other restriction the Board determines to be appropriate. Provided that the "Repurchase Limitation" in Section 8(l) is not violated, the Company will not be required to exercise its repurchase right until at least six months (or such longer or shorter period of time required to avoid classification of the Option as a liability for financial accounting purposes) have elapsed following exercise of the Option unless the Board otherwise specifically provides in the Option Agreement.

**(n) Right of Repurchase.** Subject to the "Repurchase Limitation" in Section 8(l), the Option or SAR may include a provision whereby the Company may elect to repurchase all or any part of the vested shares of Common Stock acquired by the Participant pursuant to the exercise of the Option or SAR.

**(o) Right of First Refusal.** The Option or SAR may include a provision whereby the Company may elect to exercise a right of first refusal following receipt of notice from the Participant of the intent to transfer all or any part of the shares of Common Stock received upon the exercise of the Option or SAR. Such right of first refusal will be subject to the "Repurchase Limitation" in Section 8(l). Except as expressly provided in this Section 5(o) or in the Stock Award Agreement, such right of first refusal will otherwise comply with any applicable provisions of the bylaws of the Company.

#### **6. Provisions of Stock Awards Other than Options and SARs.**

**(a) Restricted Stock Awards.** Each Restricted Stock Award Agreement will be in such form and will contain such terms and conditions as the Board will deem appropriate. To the extent consistent with the Company's bylaws, at the Board's election, shares of Common Stock underlying a Restricted Stock Award may be (i) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse; or (ii) evidenced by a certificate, which certificate will be held in such form and manner as determined by the Board. The terms and conditions of Restricted Stock Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Award Agreements need not be identical. Each Restricted Stock Award Agreement will conform to (through incorporation of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

**(i) Consideration.** A Restricted Stock Award may be awarded in consideration for (A) cash, check, bank draft or money order payable to the Company, (B) past services to the Company or an Affiliate, or (C) any other form of legal consideration (including future services) that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

**(ii) Vesting.** Subject to the "Repurchase Limitation" in Section 8(l), shares of Common Stock awarded under the Restricted Stock Award Agreement may be subject to forfeiture to the Company in accordance with a vesting schedule to be determined by the Board.

**(iii) Termination of Participant's Continuous Service.** If a Participant's Continuous Service terminates, the Company may receive through a forfeiture condition or a repurchase right, any or all of the shares of Common Stock held by the Participant that have not vested as of the date of termination of Continuous Service under the terms of the Restricted Stock Award Agreement.

**(iv) Transferability.** Rights to acquire shares of Common Stock under the Restricted Stock Award Agreement will be transferable by the Participant only upon such terms and conditions as are set forth in the Restricted Stock Award Agreement, as the Board will determine in its sole discretion, so long as Common Stock awarded under the Restricted Stock Award Agreement remains subject to the terms of the Restricted Stock Award Agreement.

**(v) Dividends.** A Restricted Stock Award Agreement may provide that any dividends paid on Restricted Stock will be subject to the same vesting and forfeiture restrictions as apply to the shares subject to the Restricted Stock Award to which they relate.

**(b) Restricted Stock Unit Awards.** Each Restricted Stock Unit Award Agreement will be in such form and will contain such terms and conditions as the Board will deem appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical. Each Restricted Stock Unit Award Agreement will conform to (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:

**(i) Consideration.** At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

**(ii) Vesting.** At the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions on or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

**(iii) Payment.** A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.

**(iv) Additional Restrictions.** At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.

**(v) Dividend Equivalents.** Dividend equivalents may be credited in respect of shares of Common Stock covered by a Restricted Stock Unit Award, as determined by the Board and contained in the Restricted Stock Unit Award Agreement. At the sole discretion of the Board, such dividend equivalents may be converted into additional shares of Common Stock covered by the Restricted Stock Unit Award in such manner as determined by the Board. Any additional shares covered by the Restricted Stock Unit Award credited by reason of such dividend equivalents will be subject to all of the same terms and conditions of the underlying Restricted Stock Unit Award Agreement to which they relate.

**(vi) Termination of Participant's Continuous Service.** Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.

**(vii) Compliance with Section 409A of the Code.** Notwithstanding anything to the contrary set forth herein, any Restricted Stock Unit Award granted under the Plan that is not exempt from the requirements of Section 409A of the Code will contain such provisions so that such Restricted Stock Unit Award will comply with the requirements of Section 409A of the Code. Such restrictions, if any, will be determined by the Board and contained in the Restricted Stock Unit Award Agreement evidencing such Restricted Stock Unit Award. For example, such restrictions may include, without limitation, a requirement that any Common Stock that is to be issued in a year following the year in which the Restricted Stock Unit Award vests must be issued in accordance with a fixed pre-determined schedule.

**(c) Other Stock Awards.** Other forms of Stock Awards valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof (e.g., options or stock rights with an exercise price or strike price less than 100% of the Fair Market Value of the Common Stock at the time of grant) may be granted either alone or in addition to Stock Awards provided for under Section 5 and the preceding provisions of this Section 6. Subject to the provisions of the Plan, the Board will have sole and complete authority to determine the persons to whom and the time or times at which such Other Stock Awards will be granted, the number of shares of Common Stock (or the cash equivalent thereof) to be granted pursuant to such Other Stock Awards and all other terms and conditions of such Other Stock Awards.

## **7. Covenants of the Company.**

**(a) Availability of Shares.** The Company will keep available at all times the number of shares of Common Stock reasonably required to satisfy then-outstanding Stock Awards.

**(b) Securities Law Compliance.** The Company will seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided, however,* that this undertaking will not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts and at a reasonable cost, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company will be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant will not be eligible for the grant of a Stock Award or the subsequent issuance of cash or Common Stock pursuant to the Stock Award if such grant or issuance would be in violation of any applicable securities law.

**(c) No Obligation to Notify or Minimize Taxes.** The Company will have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Stock Award. Furthermore, the Company will have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of a Stock Award or a possible period in which the Stock Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of a Stock Award to the holder of such Stock Award.

## 8. Miscellaneous.

**(a) Use of Proceeds from Sales of Common Stock.** Proceeds from the sale of shares of Common Stock pursuant to Stock Awards will constitute general funds of the Company.

**(b) Corporate Action Constituting Grant of Stock Awards.** Corporate action constituting a grant by the Company of a Stock Award to any Participant will be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Stock Award is communicated to, or actually received or accepted by, the Participant. In the event that the corporate records (e.g., Board consents, resolutions or minutes) documenting the corporate action constituting the grant contain terms (e.g., exercise price, vesting schedule or number of shares) that are inconsistent with those in the Stock Award Agreement or related grant documents as a result of a clerical error in the papering of the Stock Award Agreement or related grant documents, the corporate records will control and the Participant will have no legally binding right to the incorrect term in the Stock Award Agreement or related grant documents.

**(c) Stockholder Rights.** No Participant will be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to a Stock Award unless and until (i) such Participant has satisfied all requirements for exercise of, or the issuance of shares of Common Stock under, the Stock Award pursuant to its terms, and (ii) the issuance of the Common Stock subject to the Stock Award has been entered into the books and records of the Company.

**(d) No Employment or Other Service Rights.** Nothing in the Plan, any Stock Award Agreement or any other instrument executed thereunder or in connection with any Stock Award granted pursuant thereto will confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Stock Award was granted or will affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

**(e) Change in Time Commitment.** In the event a Participant's regular level of time commitment in the performance of his or her services for the Company and any Affiliates is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a full-time Employee to a part-time Employee or takes an extended leave of absence) after the date of grant of any Stock Award to the Participant, the Board has the right in its sole discretion to (x) make a corresponding reduction in the number of shares subject to any portion of such Stock Award that is scheduled to vest or become payable after the date of such change in time commitment, and (y) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Stock Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the Stock Award that is so reduced or extended.

**(f) Incentive Stock Option Limitations.** To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds \$100,000 (or such other limit established in the Code) or otherwise does not comply with the rules governing Incentive Stock Options, the Options or portions thereof that exceed such limit (according to the order in which they were granted) or otherwise do not comply with such rules will be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreement(s).



**(g) Investment Assurances.** The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Stock Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that the Participant is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Stock Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Stock Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, will be inoperative if (A) the issuance of the shares upon the exercise or acquisition of Common Stock under the Stock Award has been registered under a then currently effective registration statement under the Securities Act, or (B) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

**(h) Withholding Obligations.** Unless prohibited by the terms of a Stock Award Agreement, the Company may, in its sole discretion, satisfy any federal, state or local tax withholding obligation relating to a Stock Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Stock Award; *provided, however*, that no shares of Common Stock are withheld with a value exceeding the maximum amount of tax required to be withheld by law (or such lesser amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); (iii) withholding cash from a Stock Award settled in cash; (iv) withholding payment from any amounts otherwise payable to the Participant; or (v) by such other method as may be set forth in the Stock Award Agreement.

**(i) Electronic Delivery.** Any reference herein to a "written" agreement or document will include any agreement or document delivered electronically or posted on the Company's intranet (or other shared electronic medium controlled by the Company to which the Participant has access).

**(j) Deferrals.** To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Stock Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code. Consistent with Section 409A of the Code, the Board may provide for distributions while a Participant is still an employee or otherwise providing services to the Company. The Board is authorized to make deferrals of Stock Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant's termination of Continuous Service, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

**(k) Compliance with Section 409A of the Code.** To the extent that the Board determines that any Stock Award granted hereunder is subject to Section 409A of the Code, the Stock Award Agreement evidencing such Stock Award will incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code. To the extent applicable, the Plan and Stock Award Agreements will be interpreted in accordance with Section 409A of the Code. Notwithstanding anything to the contrary in the Plan (and unless the Stock Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded, and if a Participant holding a Stock Award that constitutes “deferred compensation” under Section 409A of the Code is a “specified employee” for purposes of Section 409A of the Code, no distribution or payment of any amount that is due because of a “separation from service” (as defined in Section 409A of the Code without regard to alternative definitions thereunder) will be issued or paid before the date that is six months following the date of such Participant’s “separation from service” (as defined in Section 409A of the Code without regard to alternative definitions thereunder) or, if earlier, the date of the Participant’s death, unless such distribution or payment can be made in a manner that complies with Section 409A of the Code, and any amounts so deferred will be paid in a lump sum on the day after such six month period elapses, with the balance paid thereafter on the original schedule.

**(l) Repurchase Limitation.** The terms of any repurchase right will be specified in the Stock Award Agreement. The repurchase price for vested shares of Common Stock will be the Fair Market Value of the shares of Common Stock on the date of repurchase. The repurchase price for unvested shares of Common Stock will be the lower of (i) the Fair Market Value of the shares of Common Stock on the date of repurchase or (ii) their original purchase price. However, the Company will not exercise its repurchase right until at least six months (or such longer or shorter period of time necessary to avoid classification of the Stock Award as a liability for financial accounting purposes) have elapsed following delivery of shares of Common Stock subject to the Stock Award, unless otherwise specifically provided by the Board.

#### **9. Adjustments upon Changes in Common Stock; Other Corporate Events.**

**(a) Capitalization Adjustments.** In the event of a Capitalization Adjustment, the Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 3(c), and (iii) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board will make such adjustments, and its determination will be final, binding and conclusive.

**(b) Dissolution or Liquidation.** Except as otherwise provided in the Stock Award Agreement, in the event of a dissolution or liquidation of the Company, all outstanding Stock Awards (other than Stock Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company’s right of repurchase) will terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company’s repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Stock Award is providing Continuous Service, *provided, however*, that the Board may, in its sole discretion, cause some or all Stock Awards to become fully vested, exercisable and/or no longer subject to repurchase or forfeiture (to the extent such Stock Awards have not previously expired or terminated) before the dissolution or liquidation is completed but contingent on its completion.

**(c) Corporate Transaction.** The following provisions will apply to Stock Awards in the event of a Corporate Transaction unless otherwise provided in the instrument evidencing the Stock Award or any other written agreement between the Company or any Affiliate and the Participant or unless otherwise expressly provided by the Board at the time of grant of a Stock Award. In the event of a Corporate Transaction, then, notwithstanding any other provision of the Plan, the Board may take one or more of the following actions with respect to Stock Awards, contingent upon the closing or completion of the Corporate Transaction:

(i) arrange for the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) to assume or continue the Stock Award or to substitute a similar stock award for the Stock Award (including, but not limited to, an award to acquire the same consideration paid to the stockholders of the Company pursuant to the Corporate Transaction);

(ii) arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to the Stock Award to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

(iii) accelerate the vesting, in whole or in part, of the Stock Award (and, if applicable, the time at which the Stock Award may be exercised) to a date prior to the effective time of such Corporate Transaction as the Board determines (or, if the Board does not determine such a date, to the date that is five days prior to the effective date of the Corporate Transaction), with such Stock Award terminating if not exercised (if applicable) at or prior to the effective time of the Corporate Transaction; *provided, however*, that the Board may require Participants to complete and deliver to the Company a notice of exercise before the effective date of a Corporate Transaction, which exercise is contingent upon the effectiveness of such Corporate Transaction;

(iv) arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by the Company with respect to the Stock Award;

(v) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Corporate Transaction, in exchange for such cash consideration (including no consideration) as the Board, in its sole discretion, may consider appropriate; and

(vi) make a payment, in such form as may be determined by the Board equal to the excess, if any, of (A) the value of the property the Participant would have received upon the exercise of the Stock Award immediately prior to the effective time of the Corporate Transaction, over (B) any exercise price payable by such holder in connection with such exercise. For clarity, this payment may be zero (\$0) if the value of the property is equal to or less than the exercise price. Payments under this provision may be delayed to the same extent that payment of consideration to the holders of the Company's Common Stock in connection with the Corporate Transaction is delayed as a result of escrows, earn outs, holdbacks or any other contingencies.

The Board need not take the same action or actions with respect to all Stock Awards or portions thereof or with respect to all Participants. The Board may take different actions with respect to the vested and unvested portions of a Stock Award.

**(d) Change in Control.** A Stock Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, no such acceleration will occur.

#### **10. Plan Term; Earlier Termination or Suspension of the Plan.**

**(a) Plan Term.** The Board may suspend or terminate the Plan at any time. Unless terminated sooner by the Board, the Plan will automatically terminate on the day before the 10th anniversary of the earlier of (i) the date the Plan is adopted by the Board, or (ii) the date the Plan is approved by the stockholders of the Company. No Stock Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

**(b) No Impairment of Rights.** Suspension or termination of the Plan will not impair rights and obligations under any Stock Award granted while the Plan is in effect except with the written consent of the affected Participant or as otherwise permitted in the Plan.

#### **11. Effective Date of Plan.**

This Plan will become effective on the Effective Date.

#### **12. Choice of Law.**

The laws of the State of Delaware will govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

#### **13. Definitions.** As used in the Plan, the following definitions will apply to the capitalized terms indicated below:

**(a) "Affiliate"** means, at the time of determination, any "parent" or "majority-owned subsidiary" of the Company, as such terms are defined in Rule 405. The Board will have the authority to determine the time or times at which "parent" or "majority-owned subsidiary" status is determined within the foregoing definition.

**(b) "Board"** means the Board of Directors of the Company.

**(c) "Capitalization Adjustment"** means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Effective Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, reverse stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure, or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

**(d) "Cause"** will have the meaning ascribed to such term in any written agreement between the Participant and the Company defining such term and, in the absence of such agreement, such term means, with respect to a Participant, the occurrence of any of the following events: (i) such Participant's commission of any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (ii) such Participant's attempted commission of, or participation in, a fraud or act of dishonesty against the Company, or any of its employees or directors; (iii) such Participant's intentional, material violation of any contract or agreement between the Participant and the Company, the Company's employment policies, or of any statutory or other duty owed to the Company; (iv) such Participant's unauthorized use or disclosure of the Company's confidential information or trade

secrets; or (v) such Participant's gross misconduct. The determination that a termination of the Participant's Continuous Service is either for Cause or without Cause will be made by the Company, in its sole discretion. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Stock Awards held by such Participant will have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(e) "**Change in Control**" means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control will not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities or (C) solely because the level of Ownership held by any Exchange Act Person (the "**Subject Person**") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control will be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than 50% of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction; or

(iii) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than 50% of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition.

Notwithstanding the foregoing definition or any other provision of this Plan, (A) the term Change in Control will not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company, (B) the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant will supersede the

foregoing definition with respect to Stock Awards subject to such agreement; *provided, however*, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the definition set forth herein will apply, and (C) if at any time the Company's Certificate of Incorporation provides definitions of various analogous transactions that would be deemed a liquidation event for the Company, then such definition will apply as if it were the definition set forth herein except as is otherwise expressly provided in an individual written agreement between the Company or any Affiliate and the Participant.

(f) "**Code**" means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(g) "**Committee**" means a committee of one or more Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(h) "**Common Stock**" means the common stock of the Company.

(i) "**Company**" means Vigil Neuroscience, Inc., a Delaware corporation.

(j) "**Consultant**" means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, will not cause a Director to be considered a "Consultant" for purposes of the Plan.

(k) "**Continuous Service**" means that the Participant's service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Director or Consultant or a change in the Entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant's service with the Company or an Affiliate, will not terminate a Participant's Continuous Service; *provided, however*, that if the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board in its sole discretion, such Participant's Continuous Service will be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. For example, a change in status from an Employee of the Company to a Consultant of an Affiliate or to a Director will not constitute an interruption of Continuous Service. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party's sole discretion, may determine whether Continuous Service will be considered interrupted in the case of (i) any leave of absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. Notwithstanding the foregoing, a leave of absence will be treated as Continuous Service for purposes of vesting in a Stock Award only to such extent as may be provided in the Company's leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law.

(l) "**Corporate Transaction**" means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of more than 50% of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(m) “**Director**” means a member of the Board.

(n) “**Disability**” means, with respect to a Participant, the inability of such Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or that has lasted or can be expected to last for a continuous period of not less than twelve (12) months as provided in Sections 22(e)(3) and 409A(a)(2)(c)(i) of the Code, and will be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(o) “**Effective Date**” means the effective date of this Plan, which is the earlier of (i) the date that this Plan is first approved by the Company’s stockholders, and (ii) the date this Plan is adopted by the Board.

(p) “**Employee**” means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an “Employee” for purposes of the Plan.

(q) “**Entity**” means a corporation, partnership, limited liability company or other entity.

(r) “**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(s) “**Exchange Act Person**” means any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that “Exchange Act Person” will not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company’s then outstanding securities.

(t) “**Fair Market Value**” means, as of any date, the value of the Common Stock determined by the Board in compliance with Section 409A of the Code or, in the case of an Incentive Stock Option, in compliance with Section 422 of the Code.

(u) **“Good Reason”** will have the meaning ascribed to such term in any written agreement between the Participant and the Company defining such term and, in the absence of such agreement, such term means, with respect to a Participant, a material and unreasonable diminution of such Participant’s duties (as determined by the Board in its sole discretion) without such Participant’s consent; provided, however, that the following shall not constitute Good Reason: (i) a change of title; (ii) a reduction in such Participant’s duties by virtue of the Company undergoing a Change in Control and/or being made part of a larger entity or group of entities; and/or (iii) cessation of such Participant’s service, if any, on the Board or a committee thereof. For such Participant to receive the benefits under the applicable written agreement between such Participant and the Company as a result of a voluntary resignation for Good Reason, unless otherwise provided in such agreement, all of the following requirements must be satisfied: (A) such Participant must provide notice to the Company of such Participant’s intent to assert Good Reason within thirty (30) days of the initial existence of the condition set forth in the previous sentence; (B) the Company will have thirty (30) days (the **“Company Cure Period”**) from the date of such notice to remedy the condition and, if it does so, such Participant may withdraw such Participant’s resignation or such Participant may resign with no benefits under the applicable written agreement; and (C) any termination of such Participant’s Continuous Service under this provision must occur within ten (10) days of the earlier of expiration of the Company Cure Period or written notice from the Company that it will not undertake to cure the applicable condition. Unless otherwise set forth in the applicable written agreement, should the Company remedy the condition as set forth above and then such condition arises again, such Participant may assert Good Reason again subject to all of the conditions set forth herein. Unless otherwise set forth in the applicable written agreement, the term **“Company”** for purposes of **“Good Reason”** will be interpreted to include any Affiliate of the Company to which such Participant provides services, if appropriate, as determined by the Board in its sole discretion.

(v) **“Incentive Stock Option”** means an option granted pursuant to Section 5 of the Plan that is intended to be, and that qualifies as, an **“incentive stock option”** within the meaning of Section 422 of the Code.

(w) **“Nonstatutory Stock Option”** means an option granted pursuant to Section 5 of the Plan that does not qualify as an Incentive Stock Option.

(x) **“Officer”** means any person designated by the Company as an officer.

(y) **“Option”** means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

(z) **“Option Agreement”** means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an Option grant. Each Option Agreement will be subject to the terms and conditions of the Plan.

(aa) **“Optionholder”** means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(bb) **“Other Stock Award”** means an award based in whole or in part by reference to the Common Stock which is granted pursuant to the terms and conditions of Section 6(c).

(cc) **“Other Stock Award Agreement”** means a written agreement between the Company and a holder of an Other Stock Award evidencing the terms and conditions of an Other Stock Award grant. Each Other Stock Award Agreement will be subject to the terms and conditions of the Plan.



**(dd) “Own,” “Owned,” “Owner,” “Ownership”** A person or Entity will be deemed to “Own,” to have “Owned,” to be the “Owner” of, or to have acquired “Ownership” of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

**(ee) “Participant”** means a person to whom a Stock Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

**(ff) “Plan”** means this 2020 Equity Incentive Plan.

**(gg) “Restricted Stock Award”** means an award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(a).

**(hh) “Restricted Stock Award Agreement”** means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. Each Restricted Stock Award Agreement will be subject to the terms and conditions of the Plan.

**(ii) “Restricted Stock Unit Award”** means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(b).

**(jj) “Restricted Stock Unit Award Agreement”** means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement will be subject to the terms and conditions of the Plan.

**(kk) “Rule 405”** means Rule 405 promulgated under the Securities Act.

**(ll) “Rule 701”** means Rule 701 promulgated under the Securities Act.

**(mm) “Securities Act”** means the Securities Act of 1933, as amended.

**(nn) “Stock Appreciation Right” or “SAR”** means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 5.

**(oo) “Stock Appreciation Right Agreement”** means a written agreement between the Company and a holder of a Stock Appreciation Right evidencing the terms and conditions of a Stock Appreciation Right grant. Each Stock Appreciation Right Agreement will be subject to the terms and conditions of the Plan.

**(pp) “Stock Award”** means any right to receive Common Stock granted under the Plan, including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a Restricted Stock Unit Award, a Stock Appreciation Right or any Other Stock Award.

**(qq) “Stock Award Agreement”** means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement will be subject to the terms and conditions of the Plan.

**(rr) “Subsidiary”** means, with respect to the Company, (i) any corporation of which more than 50% of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation will have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than 50%.

**(ss) “Ten Percent Stockholder”** means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or any Affiliate.

2020 Equity Incentive Plan

OPTION AGREEMENT  
(INCENTIVE STOCK OPTION OR NONSTATUTORY STOCK OPTION)

Pursuant to your Stock Option Grant Notice (“**Grant Notice**”) and this Option Agreement, **Vigil Neuroscience, Inc.** (the “**Company**”) has granted you an option under its 2020 Equity Incentive Plan (the “**Plan**”) to purchase the number of shares of the Company’s Common Stock indicated in your Grant Notice at the exercise price indicated in your Grant Notice. The option is granted to you effective as of the date of grant set forth in the Grant Notice (the “**Date of Grant**”). If there is any conflict between the terms in this Option Agreement and the Plan, the terms of the Plan will control. Capitalized terms not explicitly defined in this Option Agreement or in the Grant Notice but defined in the Plan will have the same definitions as in the Plan.

The details of your option, in addition to those set forth in the Grant Notice and the Plan, are as follows:

**1. Vesting.** Your option will vest as provided in your Grant Notice. Vesting will cease upon the termination of your Continuous Service.

**2. Number of Shares and Exercise Price.** The number of shares of Common Stock subject to your option and your exercise price per share in your Grant Notice will be adjusted for Capitalization Adjustments.

**3. Exercise Restriction for Non-Exempt Employees.** If you are an Employee eligible for overtime compensation under the Fair Labor Standards Act of 1938, as amended (that is, a “**Non-Exempt Employee**”), and except as otherwise provided in the Plan, you may not exercise your option until you have completed at least six months of Continuous Service measured from the Date of Grant, even if you have already been an employee for more than six months. Consistent with the provisions of the Worker Economic Opportunity Act, you may exercise your option as to any vested portion prior to such six month anniversary in the case of (i) your death or disability, (ii) a Corporate Transaction in which your option is not assumed, continued or substituted, (iii) a Change in Control or (iv) your termination of Continuous Service on your “retirement” (as defined in the Company’s benefit plans).

**4. Exercise prior to Vesting (“Early Exercise”).** If permitted in your Grant Notice (*i.e.*, the “Exercise Schedule” indicates “Early Exercise Permitted”) and subject to the provisions of your option, you may elect at any time that is both (i) during the period of your Continuous Service and (ii) during the term of your option, to exercise all or part of your option, including the unvested portion of your option; *provided, however*, that:

**a.** a partial exercise of your option will be deemed to cover first vested shares of Common Stock and then the earliest vesting installment of unvested shares of Common Stock;

**b.** any shares of Common Stock so purchased from installments that have not vested as of the date of exercise will be subject to the purchase option in favor of the Company as described in the Company’s form of Early Exercise Stock Purchase Agreement;

c. you will enter into the Company's form of Early Exercise Stock Purchase Agreement with a vesting schedule that will result in the same vesting as if no early exercise had occurred; and

d. if your option is an Incentive Stock Option, then, to the extent that the aggregate Fair Market Value (determined at the Date of Grant) of the shares of Common Stock with respect to which your option plus all other Incentive Stock Options you hold are exercisable for the first time by you during any calendar year (under all plans of the Company and its Affiliates) exceeds \$100,000, your option(s) or portions thereof that exceed such limit (according to the order in which they were granted) will be treated as Nonstatutory Stock Options.

**5. Method of Payment.** You must pay the full amount of the exercise price for the shares you wish to exercise. The permitted methods of payment are as follows:

a. by cash, check, bank draft, electronic funds transfer or money order payable to the Company;

b. subject to Company and/or Board consent at the time of exercise and provided that at the time of exercise the Common Stock is publicly traded, pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of Common Stock, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds. This manner of payment is also known as a "broker-assisted exercise", "same day sale", or "sell to cover";

c. subject to Company and/or Board consent at the time of exercise and provided that at the time of exercise the Common Stock is publicly traded, by delivery to the Company (either by actual delivery or attestation) of already-owned shares of Common Stock that are owned free and clear of any liens, claims, encumbrances or security interests, and that are valued at Fair Market Value on the date of exercise. "Delivery" for these purposes, in the sole discretion of the Company at the time you exercise your option, will include delivery to the Company of your attestation of ownership of such shares of Common Stock in a form approved by the Company. You may not exercise your option by delivery to the Company of Common Stock if doing so would violate the provisions of any law, regulation or agreement restricting the redemption of the Company's stock;

d. subject to Company and/or Board consent at the time of exercise, and provided that the Option is a Nonstatutory Stock Option, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issued upon exercise of the Option by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price plus, to the extent permitted by the Company and/or Board at the time of exercise, the aggregate withholding obligations in respect of the Option exercise; provided, further that you must pay any remaining balance of the aggregate exercise price not satisfied by the "net exercise" in cash or other permitted form of payment. Shares of Common Stock will no longer be subject to the Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are used to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to you as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations;

e. subject to the consent of the Company and/or Board at the time of exercise, according to a deferred payment or similar arrangement with you; *provided, however*, that interest will compound at least annually and will be charged at the minimum rate of interest necessary to avoid (A) the imputation of interest income to the Company and compensation income to the Optionholder under any applicable provisions of the Code, and (B) the classification of the Option as a liability for financial accounting purposes; or

f. in any other form of legal consideration that may be acceptable to the Board.

**6. Whole Shares.** You may exercise your option only for whole shares of Common Stock.

**7. Securities Law Compliance.** In no event may you exercise your option unless the shares of Common Stock issuable upon exercise are then registered under the Securities Act or, if not registered, the Company has determined that your exercise and the issuance of the shares would be exempt from the registration requirements of the Securities Act. The exercise of your option also must comply with all other applicable laws and regulations governing your option, and you may not exercise your option if the Company determines that such exercise would not be in material compliance with such laws and regulations (including any restrictions on exercise required for compliance with Treas. Reg. 1.401(k)-1(d)(3), if applicable).

**8. Term.** You may not exercise your option before the Date of Grant or after the expiration of the option's term. Except as set forth in your Grant Notice, the term of your option expires, subject to the provisions of Section 5(h) of the Plan, upon the earliest of the following:

a. immediately upon the termination of your Continuous Service for Cause;

b. three months after the termination of your Continuous Service for any reason other than Cause, your Disability or your death (except as otherwise provided in Section 8(d) below); *provided, however*, that if during any part of such three month period your option is not exercisable solely because of the condition set forth in the section above relating to "Securities Law Compliance," your option will not expire until the earlier of the Expiration Date or until it has been exercisable for an aggregate period of three months after the termination of your Continuous Service; *provided further*, that if (i) you are a Non-Exempt Employee, (ii) your Continuous Service terminates within six months after the Date of Grant, and (iii) you have vested in a portion of your option at the time of your termination of Continuous Service, your option will not expire until the earlier of (x) the later of (A) the date that is seven months after the Date of Grant, and (B) the date that is three months after the termination of your Continuous Service, and (y) the Expiration Date;

c. 12 months after the termination of your Continuous Service due to your Disability (except as otherwise provided in Section 8(d) below);

d. 18 months after your death if you die either during your Continuous Service or within three (3) months after your Continuous Service terminates for any reason other than Cause;

e. the Expiration Date indicated in your Grant Notice; or

f. the day before the 10th anniversary of the Date of Grant.

If your option is an Incentive Stock Option, note that to obtain the federal income tax advantages associated with an Incentive Stock Option, the Code requires that at all times beginning on the Date of Grant and ending on the day three months before the date of your option's exercise, you must be an employee of the Company or an Affiliate, except in the event of your death or Disability. The Company

has provided for extended exercisability of your option under certain circumstances for your benefit but cannot guarantee that your option will necessarily be treated as an Incentive Stock Option if you continue to provide services to the Company or an Affiliate as a Consultant or Director after your employment terminates or if you otherwise exercise your option more than three months after the date your employment with the Company or an Affiliate terminates.

#### **9. Exercise.**

**a.** You may exercise the vested portion of your option (and the unvested portion of your option if your Grant Notice so permits) during its term by delivering a Notice of Exercise (in a form designated by the Company) together with the exercise price to the Secretary of the Company, or to such other person as the Company may designate, during regular business hours. If required by the Company, your exercise may be made contingent on your execution of any additional documents specified by the Company (including, without limitation, any voting agreement or other agreement between the Company and some or all of its stockholders).

**b.** By exercising your option you agree that, as a condition to any exercise of your option, the Company may require you to enter into an arrangement providing for the payment by you to the Company of any tax withholding obligation of the Company arising by reason of (i) the exercise of your option, (ii) the lapse of any substantial risk of forfeiture to which the shares of Common Stock are subject at the time of exercise, or (iii) the disposition of shares of Common Stock acquired upon such exercise.

**c.** If your option is an Incentive Stock Option, by exercising your option you agree that you will notify the Company in writing within 15 days after the date of any disposition of any of the shares of the Common Stock issued upon exercise of your option that occurs within two years after the Date of Grant or within one year after such shares of Common Stock are transferred upon exercise of your option.

**d.** By exercising your option you agree that you will not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale with respect to any shares of Common Stock or other securities of the Company held by you, for a period of 180 days following the effective date of a registration statement of the Company filed under the Securities Act or such longer period as the underwriters or the Company will request to facilitate compliance with applicable FINRA rules (the "**Lock-Up Period**"); *provided, however*, that nothing contained in this section will prevent the exercise of a repurchase option, if any, in favor of the Company during the Lock-Up Period. You further agree to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to your shares of Common Stock until the end of such period. You also agree that any transferee of any shares of Common Stock (or other securities) of the Company held by you will be bound by this Section 9(d). The underwriters of the Company's stock are intended third party beneficiaries of this Section 9(d) and will have the right, power and authority to enforce the provisions hereof as though they were a party hereto. You further agree that the obligations contained in this Section 9(d) shall also, if so determined by the Company's Board of Directors, apply in the Company's initial listing of its Common Stock on a national securities exchange by means of a registration statement on Form S-1 under the Securities Act (or any successor registration form under the Securities Act subsequently adopted by the Securities and Exchange Commission) filed by the Company with the Securities and Exchange Commission that registers shares of existing capital stock of the Company for resale (a "**Direct Listing**"), provided that all holders of at least 5% of the Company's outstanding Common Stock (after giving effect to the conversion into Common Stock of any outstanding Preferred Stock of the Company) are subject to substantially similar obligations with respect to such Direct Listing.

**10. Transferability.** Except as otherwise provided in this Section 10, your option is not transferable, except by will or by the laws of descent and distribution, and is exercisable during your life only by you.

**a. Certain Trusts.** Upon receiving written permission from the Board or its duly authorized designee, you may transfer your option to a trust if you are considered to be the sole beneficial owner (determined under Section 671 of the Code and applicable state law) while the option is held in the trust. You and the trustee must enter into transfer and other agreements required by the Company.

**b. Domestic Relations Orders.** Upon receiving written permission from the Board or its duly authorized designee, and provided that you and the designated transferee enter into transfer and other agreements required by the Company, you may transfer your option pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by Treasury Regulation 1.421-1(b)(2) that contains the information required by the Company to effectuate the transfer. You are encouraged to discuss the proposed terms of any division of this option with the Company prior to finalizing the domestic relations order or marital settlement agreement to help ensure the required information is contained within the domestic relations order or marital settlement agreement. If this option is an Incentive Stock Option, this option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

**c. Beneficiary Designation.** Upon receiving written permission from the Board or its duly authorized designee, you may, by delivering written notice to the Company, in a form approved by the Company and any broker designated by the Company to handle option exercises, designate a third party who, on your death, will thereafter be entitled to exercise this option and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, your executor or administrator of your estate will be entitled to exercise this option and receive, on behalf of your estate, the Common Stock or other consideration resulting from such exercise.

**11. Right of First Refusal.** Shares of Common Stock that you acquire upon exercise of your option are subject to any right of first refusal that may be described in the Company's bylaws in effect at such time the Company elects to exercise its right; *provided, however*, that if there is no right of first refusal described in the Company's bylaws at such time, the right of first refusal described below will apply. The Company's right of first refusal will expire on the first date upon which any security of the Company is listed (or approved for listing) upon notice of issuance on a national securities exchange or quotation system (the "**Listing Date**").

**a.** Prior to the Listing Date, you may not validly Transfer (as defined below) any shares of Common Stock acquired upon exercise of your option, or any interest in such shares, unless such Transfer is made in compliance with the following provisions:

**1)** Before there can be a valid Transfer of any shares of Common Stock or any interest therein, the record holder of the shares of Common Stock to be transferred (the "**Offered Shares**") will give written notice (by registered or certified mail) to the Company. Such notice will specify the identity of the proposed transferee, the cash price offered for the Offered Shares by the proposed transferee (or, if the proposed Transfer is one in which the holder will not receive cash, such as an involuntary transfer, gift, donation or pledge, the holder will state that no purchase price is being proposed),

and the other terms and conditions of the proposed Transfer. The date such notice is mailed will be hereinafter referred to as the “**Notice Date**” and the record holder of the Offered Shares will be hereinafter referred to as the “**Offeror**.” If, from time to time, there is any stock dividend, stock split or other change in the character or amount of any of the outstanding Common Stock which is subject to the provisions of your option, then in such event any and all new, substituted or additional securities to which you are entitled by reason of your ownership of the shares of Common Stock acquired upon exercise of your option will be immediately subject to the Company’s Right of First Refusal (as defined below) with the same force and effect as the shares subject to the Right of First Refusal immediately before such event.

2) For a period of 30 calendar days after the Notice Date, or such longer period as may be required to avoid the classification of your option as a liability for financial accounting purposes, the Company will have the option to purchase all (but not less than all) of the Offered Shares at the purchase price and on the terms set forth in Section 11(a)(iii) (the Company’s “**Right of First Refusal**”). In the event that the proposed Transfer is one involving no payment of a purchase price, the purchase price will be deemed to be the Fair Market Value of the Offered Shares as determined in good faith by the Board in its discretion. The Company may exercise its Right of First Refusal by mailing (by registered or certified mail) written notice of exercise of its Right of First Refusal to the Offeror prior to the end of said 30 days (including any extension required to avoid classification of the option as a liability for financial accounting purposes).

3) The price at which the Company may purchase the Offered Shares pursuant to the exercise of its Right of First Refusal will be the cash price offered for the Offered Shares by the proposed transferee (as set forth in the notice required under Section 11(a)(i)), or the Fair Market Value as determined by the Board in the event no purchase price is involved. To the extent consideration other than cash is offered by the proposed transferee, the Company will not be required to pay any additional amounts to the Offeror other than the cash price offered (or the Fair Market Value, if applicable). The Company’s notice of exercise of its Right of First Refusal will be accompanied by full payment for the Offered Shares and, upon such payment by the Company, the Company will acquire full right, title and interest to all of the Offered Shares.

4) If, and only if, the option given pursuant to Section 11(a)(ii) is not exercised, the Transfer proposed in the notice given pursuant to Section 11(a)(i) may take place; *provided, however*, that such Transfer must, in all respects, be exactly as proposed in said notice except that such Transfer may not take place either before the 10<sup>th</sup> calendar day after the expiration of the 30 day option exercise period or after the ninetieth 90<sup>th</sup> calendar day after the expiration of the 30 day option exercise period, and if such Transfer has not taken place prior to said 90<sup>th</sup> day, such Transfer may not take place without once again complying with this Section 11(a). The option exercise periods in this Section 11(a)(iv) will be adjusted to include any extension required to avoid the classification of your option as a liability for financial accounting purposes.

b. As used in this Section 11, the term “**Transfer**” means any sale, encumbrance, pledge, gift or other form of disposition or transfer of shares of Common Stock or any legal or equitable interest therein; *provided, however*, that the term Transfer does not include a transfer of such shares or interests by will or intestacy to your Immediate Family (as defined below). In such case, the transferee or other recipient will receive and hold the shares of Common Stock so transferred subject to the provisions of this Section, and there will be no further transfer of such shares except in accordance with the terms of this Section 11. As used herein, the term “**Immediate Family**” will mean your spouse, the lineal descendant or antecedent, father, mother, brother or sister, child, adopted child, grandchild or adopted grandchild of you or your spouse, or the spouse of any child, adopted child, grandchild or adopted grandchild of you or your spouse.



c. None of the shares of Common Stock purchased on exercise of your option will be transferred on the Company's books nor will the Company recognize any such Transfer of any such shares or any interest therein unless and until all applicable provisions of this Section 11 have been complied with in all respects. The certificates of stock evidencing shares of Common Stock purchased on exercise of your option will bear an appropriate legend referring to the transfer restrictions imposed by this Section 11.

d. To ensure that the shares subject to the Company's Right of First Refusal will be available for repurchase by the Company, the Company may require you to deposit the certificates evidencing the shares that you purchase upon exercise of your option with an escrow agent designated by the Company under the terms and conditions of an escrow agreement approved by the Company. If the Company does not require such deposit as a condition of exercise of your option, the Company reserves the right at any time to require you to so deposit the certificates in escrow. As soon as practicable after the expiration of the Company's Right of First Refusal, the agent will deliver to you the shares and any other property no longer subject to such restriction. In the event the shares and any other property held in escrow are subject to the Company's exercise of its Right of First Refusal, the notices required to be given to you will be given to the escrow agent, and any payment required to be given to you will be given to the escrow agent. Within 30 days after payment by the Company for the Offered Shares, the escrow agent will deliver the Offered Shares that the Company has repurchased to the Company and will deliver the payment received from the Company to you.

**12. Option not a Service Contract.** Your option is not an employment or service contract, and nothing in your option will be deemed to create in any way whatsoever any obligation on your part to continue in the employ of the Company or an Affiliate, or of the Company or an Affiliate to continue your employment. In addition, nothing in your option will obligate the Company or an Affiliate, their respective stockholders, boards of directors, officers or employees to continue any relationship that you might have as a Director or Consultant for the Company or an Affiliate.

### **13. Withholding Obligations.**

a. At the time you exercise your option, in whole or in part, and at any time thereafter as requested by the Company, you hereby authorize withholding from payroll and any other amounts payable to you, and otherwise agree to make adequate provision for (including by means of a "same day sale" pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board to the extent permitted by the Company), any sums required to satisfy the federal, state, local and foreign tax withholding obligations of the Company or an Affiliate, if any, which arise in connection with the exercise of your option.

b. If this option is a Nonstatutory Stock Option, then upon your request and subject to approval by the Company, and compliance with any applicable legal conditions or restrictions, the Company may withhold from fully vested shares of Common Stock otherwise issuable to you upon the exercise of your option a number of whole shares of Common Stock having a Fair Market Value, determined by the Company as of the date of exercise, not in excess of the minimum amount of tax required to be withheld by law (or such lower amount as may be necessary to avoid classification of your option as a liability for financial accounting purposes). If the date of determination of any tax withholding obligation is deferred to a date later than the date of exercise of your option, share withholding pursuant to the preceding sentence will not be permitted unless you make a proper and timely election under Section 83(b)

of the Code, covering the aggregate number of shares of Common Stock acquired upon such exercise with respect to which such determination is otherwise deferred, to accelerate the determination of such tax withholding obligation to the date of exercise of your option. Notwithstanding the filing of such election, shares of Common Stock will be withheld solely from fully vested shares of Common Stock determined as of the date of exercise of your option that are otherwise issuable to you upon such exercise. Any adverse consequences to you arising in connection with such share withholding procedure will be your sole responsibility.

c. You may not exercise your option unless the tax withholding obligations of the Company and/or any Affiliate are satisfied. Accordingly, you may not be able to exercise your option when desired even though your option is vested, and the Company will have no obligation to issue a certificate for such shares of Common Stock or release such shares of Common Stock from any escrow provided for herein, if applicable, unless such obligations are satisfied.

**14. Tax Consequences.** You hereby agree that the Company does not have a duty to design or administer the Plan or its other compensation programs in a manner that minimizes your tax liabilities. You will not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax liabilities arising from your option or your other compensation. In particular, you acknowledge that this option is exempt from Section 409A of the Code only if the exercise price per share specified in the Grant Notice is at least equal to the “fair market value” per share of the Common Stock on the Date of Grant and there is no other impermissible deferral of compensation associated with the option. Because the Common Stock is not traded on an established securities market, the Fair Market Value is determined by the Board, perhaps in consultation with an independent valuation firm retained by the Company. You acknowledge that there is no guarantee that the Internal Revenue Service will agree with the valuation as determined by the Board, and you will not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates in the event that the Internal Revenue Service asserts that the valuation determined by the Board is less than the “fair market value” as subsequently determined by the Internal Revenue Service.

**15. Notices.** Any notices provided for in your option or the Plan will be given in writing (including electronically) and will be deemed effectively given upon receipt or, in the case of notices delivered by mail by the Company to you, five days after deposit in the United States mail, postage prepaid, addressed to you at the last address you provided to the Company. The Company may, in its sole discretion, decide to deliver any documents related to participation in the Plan and this option by electronic means or to request your consent to participate in the Plan by electronic means. By accepting this option, you consent to receive such documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

**16. Governing Plan Document.** Your option is subject to all the provisions of the Plan, the provisions of which are hereby made a part of your option, and is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. If there is any conflict between the provisions of your option and those of the Plan, the provisions of the Plan will control.

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH “[\*\*\*]”. SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

**Exhibit 10.11**

**EXECUTION VERSION**

**EXCLUSIVE LICENSE AGREEMENT**

**by and between**

**AMGEN INC.**

**and**

**VIGIL NEUROSCIENCE, INC.**

**Dated as of July 9, 2020**

Amgen Proprietary – Confidential

Amgen Proprietary – Confidential/Vigil Proprietary & Confidential

Amgen Contract No. 2020044836

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#### **Exhibit List**

Exhibit A	Licensed Know-How & Licensed Materials
Exhibit B	Licensed Patents
Exhibit C	Permitted CMOs/CROs
Exhibit D	Licensed Compounds
Exhibit E	Supplemental Confidentiality Agreement
Exhibit F	Reservation Agreement
Exhibit G	Ongoing Studies
Exhibit H	[***] Order Summary

## EXCLUSIVE LICENSE AGREEMENT

This EXCLUSIVE LICENSE AGREEMENT (this “**Agreement**”) is entered into as of July 9, 2020 (the “**Effective Date**”) by and between AMGEN INC., a Delaware corporation having an address at One Amgen Center Drive, Thousand Oaks, California 91320 (“**AMGEN**”), and VIGIL NEUROSCIENCE, INC., a Delaware corporation having an address at 400 Technology Square, 10th Floor, Cambridge, MA 02139 (“**VIGIL**”). VIGIL and AMGEN are sometimes referred to herein individually as a “**Party**” and collectively as the “**Parties**”.

### RECITALS

**WHEREAS**, AMGEN possesses certain rights to patents and other intellectual property related to compounds binding to TREM2 (as hereinafter defined); and

**WHEREAS**, VIGIL desires to license from AMGEN such patents and intellectual property rights, and to commercially develop, manufacture, use and distribute products containing compounds that bind to TREM2, and AMGEN desires to grant such a license to VIGIL in accordance with the terms and conditions of this Agreement; and

**WHEREAS**, simultaneous with the execution of this Agreement, AMGEN and Atlas Venture Life Science Advisors LLC (“**Atlas**”) have executed that certain Guarantee pursuant to which Atlas has guaranteed the performance of VIGIL’s payment obligations under Section 2.5.3; and

**WHEREAS**, simultaneous with the execution of this Agreement, Amgen and VIGIL have executed that certain Side Letter (the “**Equity Side Letter**”), pursuant to which, VIGIL has committed to issue to AMGEN equity of VIGIL and Amgen has been further granted certain rights with respect to [\*\*\*], as partial consideration for the licenses and covenants granted in this Agreement.

**NOW, THEREFORE**, in consideration of the premises and the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

### ARTICLE 1. DEFINITIONS

All references to particular Exhibits, Articles or Sections shall mean the Exhibits to, and Articles and Sections of, this Agreement, unless otherwise specified. For the purposes of this Agreement and the Exhibits hereto, the following words and phrases shall have the following meanings:

**Section 1.1** “**Abandoned Patent Right**” has the meaning set forth in 4.2.2(AMGEN Step-In Right).

**Section 1.2** “**Acquisition Transaction**” has the meaning set forth in Section 2.4 [\*\*\*].

**Section 1.3** “**Agreement**” has the meaning set forth in the Preamble.

- Section 1.4** “**Affiliate**” means, with respect to any Person, any other Person that, directly, or indirectly through one or more intermediaries, controls, is controlled by or is under common control with such Person, for as long as such control exists. For purposes of this Section, “control” means the direct or indirect ownership of more than fifty percent (50%) of the voting or economic interest of a Person, or the power, whether pursuant to contract, ownership of securities or otherwise, to direct the management and policies of a Person. For clarity, once a Person ceases to be an Affiliate of a Party, then, without any further action, such Person shall cease to have any rights, including license and sublicense rights, under this Agreement by reason of being an Affiliate of such Party.
- Section 1.5** “**AMGEN**” has the meaning set forth in the Preamble.
- Section 1.6** “**AMGEN Acquiree**” has the meaning set forth in Section 10.9 (Sale Transaction or AMGEN Acquisition).
- Section 1.7** “**AMGEN Acquisition**” has the meaning set forth in Section 10.9 (Sale Transaction or AMGEN Acquisition).
- Section 1.8** “**AMGEN Cell Line**” means the [\*\*\*].
- Section 1.9** “**AMGEN Indemnified Parties**” has the meaning set forth in Section 7.1.2 (By VIGIL).
- Section 1.10** “**AMGEN Shares**” has the meaning set forth in Section 3.1.
- Section 1.11** “**Anti-Corruption Laws**” means Laws, regulations, or orders prohibiting the provision of a financial or other advantage for a corrupt purpose or otherwise in connection with the improper performance of a relevant function, including without limitation, the U.S. Foreign Corrupt Practices Act (FCPA) as amended, the UK Bribery Act 2010, as amended, and any other applicable laws, rules and regulations relating to or concerning public or commercial bribery or corruption.
- Section 1.12** “**Audited Party**” has the meaning set forth in Section 3.8 (Records and Audits).
- Section 1.13** “**Calendar Quarter**” means a three-month period beginning on January, April, July or October 1st.
- Section 1.14** “**Calendar Year**” means a one-year period beginning on January 1st and ending on December 31st.
- Section 1.15** “**Change of Control**” means (a) the closing of the sale, transfer, exclusive license or other disposition of all or substantially all of VIGIL’s assets or intellectual property, (b) the consummation of the merger or consolidation of VIGIL with or into another entity (except a merger or consolidation in which the holders of capital stock of VIGIL immediately prior to such merger or consolidation continue to hold at least fifty percent (50%) of the voting power of the capital stock of VIGIL or the surviving or acquiring entity), (c) the closing of the transfer (whether by merger, consolidation or otherwise), in one transaction or a series of related transactions, to a person or group of affiliated persons (other than an underwriter of VIGIL’s securities), of VIGIL’s securities if, after such closing, such person or group of affiliated persons would hold fifty percent (50%) or more of the outstanding voting stock of VIGIL (or the surviving or acquiring entity) or (d) a liquidation, dissolution or winding up of VIGIL.

- Section 1.16** “CNS Field” means diseases of the central nervous system.
- Section 1.17** “Commercially Reasonable Efforts” means those efforts and resources commensurate with those efforts commonly used in the pharmaceutical industry by [\*\*\*] in connection with the development or commercialization of pharmaceutical products that are of similar status, taking into account the proprietary position of the product (including intellectual property scope, subject matter and coverage), safety and efficacy, product profile, competitiveness of the marketplace, the regulatory status and approval process, anticipated or approved labeling, present and future market potential, the probable profitability of the applicable product (including pricing and reimbursement status achieved or likely to be achieved) and other relevant factors such as technical, legal, scientific or medical factors. In determining the level of efforts constituting “Commercially Reasonable Efforts,” the following shall not be taken into account: (a) any other pharmaceutical product VIGIL or any of its Affiliates is then researching, developing or commercializing, alone or with one or more collaborators or (b) any payment required to be made to AMGEN hereunder.
- Section 1.18** “Confidential Information” has the meaning set forth in Section 8.1.1 (Confidential Information).
- Section 1.19** “Consulting Support” means any work or services to be performed by AMGEN and is requested by VIGIL and agreed upon by Amgen that is related to the Exploitation of the Licensed Materials and Licensed Know How.
- Section 1.20** “Control” or “Controlled” means, with respect to any Know-How, material, Patent Right, or other intellectual property right, the possession (whether by ownership or license) by a Party or its Affiliate of the ability to grant to the other Party a license, sublicense or access as provided herein to such Know-How, material, Patent Right, or other intellectual property right, without violating Laws or the terms of any agreement or other arrangement with any Third Party, or being obligated to pay any royalties or other consideration therefor, in existence as of the time such Party or its Affiliates would first be required hereunder to grant the other Party such license, sublicense or access.
- Section 1.21** “Cover” means (a) with respect to Know-How, such Know-How was used in the Exploitation of the product, and (b) with respect to a Patent Right, (1) a Valid Claim would (absent a license thereunder or ownership thereof) be Infringed by the Exploitation of the product or (2) such Patent Right includes generic or specific disclosure of the product or use thereof wherein such disclosure is not claimed but a claim to such disclosure would be a Valid Claim; *provided, however*, that in determining whether a Valid Claim that is a claim of a pending application would be Infringed, it shall be treated as if issued as then currently being prosecuted. Cognates of the word “Cover” shall have correlative meanings.
- Section 1.22** “Covered Individuals and Entities” (or, in the singular, “Covered Individual and Entity”) means any one or more of an HCP, HCI, Payor, Purchaser, Healthcare Industry Professional Society and Trade Association, and entities owned or operated by any one or more of an HCP, HCI, Payor, Purchaser, or Healthcare Industry Professional Societies or Trade Association.



- Section 1.23** “**Defending Party**” has the meaning set forth in Section 4.4.1.
- Section 1.24** “**De Novo Compound**” means any and all [\*\*\*] that are discovered, researched, developed or otherwise Exploited by VIGIL, its Affiliates or Sublicensees that [\*\*\*], but specifically excludes all Licensed Compounds and Program Compounds.
- Section 1.25** “**De Novo Product**” means any pharmaceutical or biopharmaceutical product containing a De Novo Compound in any form or formulation, and optionally in combination with one or more other active agents, provided that if a product includes any Licensed Compound or Program Compound, such product constitutes a “Licensed Product” not a De Novo Product.
- Section 1.26** “**Disclosing Party**” has the meaning set forth in Section 8.1.1 (Confidential Information).
- Section 1.27** “**Distracting Product**” means any compound or product (but excluding any Licensed Product) that binds to TREM2 [\*\*\*] (specifically including a De Novo Product) unless and until VIGIL has elected to treat such compound or product as a “Newly Added Product” pursuant to Section 5.4.2.
- Section 1.28** “**Distracting Program**” means the clinical development, commercialization or manufacture of any Distracting Product.
- Section 1.29** “**Distracting Transaction**” means any transaction entered into by VIGIL or its Affiliates after the Effective Date whereby a Third Party that is engaged in a Distracting Program becomes an Affiliate of VIGIL.
- Section 1.30** “**Distracting Transaction Affiliates**” means those entities that are or would become Affiliates of VIGIL by virtue of a Distracting Transaction.
- Section 1.31** “**Divest**” means, with respect to any Distracting Program, the sale, exclusive license or other transfer of substantially all of the right, title and interest in and to such Distracting Program, including technology, Know-How, intellectual property and other assets materially relating thereto, to an independent Third Party, without the retention or reservation of any rights or interest (other than an economic interest) in such Distracting Program by the relevant Party or its Affiliates.
- Section 1.32** “**Dollars**” or “**\$**” means U.S. Dollars.
- Section 1.33** “**Effective Date**” has the meaning set forth in the Preamble.
- Section 1.34** “**EMA**” means the European Medicines Agency or any successor entity thereto.
- Section 1.35** “**Enforcing Party**” has the meaning set forth in Section 4.3.3 (Progress Reports).
- Section 1.36** “**Exclusively Licensed Know-How**” means the Licensed Non-Manufacturing Know-How set forth on Exhibit A under the heading “Exclusively Licensed Know-How”.
- Section 1.37** “**Exploit**” means to research, develop, make, have made, use, offer for sale, sell, import, export or otherwise exploit, or transfer possession of or title in, a product. Cognates of the word “**Exploit**” shall have correlative meanings.

- Section 1.38** “**FDA**” means the United States Food and Drug Administration or any successor entity thereto.
- Section 1.39** “**Financing Agreements**” means those agreements by and among VIGIL, AMGEN and the various investors to effect the Series A Financing.
- Section 1.40** “**First Commercial Sale**” means, with respect to a product in any country, the first sale for end use or consumption of such product in such country after Marketing Approval has been granted in such country. First Commercial Sale excludes any sale or other distribution of such product for use in a clinical trial or other development activity, promotional use (including samples) prior to Marketing Approval or for compassionate use or on a named patient basis.
- Section 1.41** “**FTE Rate**” means \$[\*\*\*] per hour. The FTE Rate shall be increased by [\*\*\*] percent ([\*\*\*]%) each calendar year, beginning with the [\*\*\*] calendar year.
- Section 1.42** [\*\*\*]
- Section 1.43** “**GAAP**” means the then current generally accepted accounting principles in the United States as established by the Financial Accounting Standards Board or any successor entity or other entity generally recognized as having the right to establish such principles in the United States, in each case consistently applied.
- Section 1.44** “**Generic Product**” means, with respect to a Small Molecule Product in a particular regulatory jurisdiction, on a Small Molecule Product-by- Small Molecule Product and country-by-country basis, any pharmaceutical product (other than a Small Molecule Product under this Agreement) that (a) is approved by the Regulatory Authority in such country for at least one indication for which such Small Molecule Product obtained Regulatory Approval from the applicable Regulatory Authority in such jurisdiction through an abbreviated new drug application as defined in 21 U.S.C. 355(j) (or equivalent outside the United States) and (b) is sold in such jurisdiction by a Third Party that is not a Sublicensee and did not purchase such product in a chain of distribution that included any of VIGIL or its Affiliates or Sublicensees.
- Section 1.45** “**Governmental Authority**” means any court, agency, department, authority or other instrumentality of any national, state, county, city or other political subdivision.
- Section 1.46** “**Government Official**” means (i) any Person employed by or acting on behalf of a Governmental Authority; (ii) any political party, party official or candidate; (iii) any Person who holds or performs the duties of an appointment, office or position created by custom or convention; and (iv) any Person who holds himself out to be the authorized intermediary of any of the foregoing.
- Section 1.47** “**Healthcare Industry Professional Society and Trade Association**” means a non-profit or tax exempt healthcare industry organization seeking to further a particular profession, the interests of individuals engaged in that profession, or the public interest (examples of such include without limitation the American Society of Hematology, the North American Society for Dialysis and Transplantation, the American Society of Hypertension, the American Cancer Society and the American Society of Clinical Oncology).

- Section 1.48** “**Healthcare Institution**” or “**HCI**” means a facility that provides health maintenance, or treats illness and injury, and can include without limitation any hospital, convalescent hospital, dialysis center, health clinic, nursing home, extended care facility, or other institution devoted to the care of sick, infirm, or aged persons, and is in a position to purchase or influence a purchasing decision for any human therapeutic product marketed, distributed, or sold or any service related thereto provided by or on behalf of Amgen or any of its Affiliates (each an “**Amgen Therapeutic Product**”).
- Section 1.49** “**Healthcare Professional**” or “**HCP**” means any person licensed to prescribe an Amgen Therapeutic Product, as well as anyone working for a person licensed to prescribe an Amgen Therapeutic Product and/or in a position to influence a purchasing decision, including without limitation physicians and other providers (e.g., nurses, pharmacists), dialysis providers, and other office personnel.
- Section 1.50** “**Infringe**” or “**Infringement**” means any infringement as determined by Law, including, without limitation, direct infringement, contributory infringement or any inducement to infringe.
- Section 1.51** “**Initiation**” means, with respect to a human clinical trial, the first dosing in the first patient in such clinical trial.
- Section 1.52** “**International Trade Laws**” means all applicable United States laws, regulations, and orders pertaining to trade and economic sanctions, export controls, and customs, including, such laws, regulations, and orders administered and enforced by the U.S. Department of the Treasury, the U.S. Department of Commerce, the U.S. Department of State and the U.S. Customs and Border Protection agency, including but not limited to the sanctions administered and enforced by the Office of Foreign Assets Control (OFAC), the United States Export Administration Act of 1979, as amended, and the Export Control Reform Act of 2018, and implementing Export Administration Regulations (EAR); the Arms Export Control Act and implementing International Traffic in Arms Regulations (ITAR); and all comparable applicable export and import Laws outside the United States for each country where the Parties or their agents and representatives conduct business.
- Section 1.53** “**IPO**” means VIGIL’s initial public offering or another transaction, including a reverse merger, pursuant to which VIGIL (or its successor) first has its equity securities listed on a recognized stock exchange or trading system (e.g., NYSE or NASDAQ).
- Section 1.54** “**Issuing Party**” has the meaning set forth in Section 8.2.2 (Review).
- Section 1.55** “**Know-How**” means techniques, technology, trade secrets, inventions (whether patentable or not), methods, data (both primary and summary), reports and results (including pharmacological, toxicological and clinical data and results), analytical and quality control data and results, regulatory documents, cell line technology and development information, manufacturing process information and other information.

- Section 1.56** “**Law**” means, individually and collectively, any and all laws, ordinances, rules, directives, administrative circulars and regulations of any kind whatsoever of any Governmental Authority within the applicable jurisdiction, including, but not limited to, Anti-Corruption Laws, International Trade Laws, those concerning data privacy and protection, and healthcare compliance.
- Section 1.57** “**Licensed Compound**” means any compound that: (a) is Controlled by AMGEN or its Affiliates; (b)(1) for a monoclonal antibody, binds to TREM2 [\*\*\*] and (2) for a small molecule, binds to TREM2 and has agonist activity on TREM2 [\*\*\*]; and (c) was discovered, researched or developed in the conduct of the Licensed MAB Program or the Licensed Small Molecule Program by AMGEN or its Affiliates prior to the Effective Date. The Licensed Compounds are listed or referenced on Exhibit D.
- Section 1.58** “**Licensed Field**” means any and all uses.
- Section 1.59** “**Licensed Non-Manufacturing Know-How**” means all proprietary Know-How that both (a) is Controlled by AMGEN or its Affiliates and (b) [\*\*\*] in the Licensed MAB Program and Licensed Small Molecule Program, in each case (a) and (b) prior to the Effective Date, as set forth on Exhibit A; **provided, however**, “Licensed Non-Manufacturing Know-How” excludes (1) any Know-How relating to AMGEN’s or its Affiliates manufacturing platform or activities, including, specifically, the Licensed Manufacturing Know-How and (2) any Know-How solely relating to the research, development, manufacture or use of [\*\*\*].
- Section 1.60** “**Licensed Know-How**” means the Licensed Non-Manufacturing Know-How together with the Licensed Manufacturing Know-How, in each case, as set forth on Exhibit A.
- Section 1.61** “**Licensed Lead Antibody Compound**” means the Licensed Compound known as [\*\*\*] or [\*\*\*].
- Section 1.62** “**Licensed Manufacturing Know-How**” means all proprietary manufacturing process-related Know-How directly relating to the manufacture of the Licensed Lead Antibody Compound that both (i) is Controlled by AMGEN or its Affiliates and (ii) [\*\*\*], in each case (i) and (ii) prior to the Effective Date, as set forth on Exhibit A; **provided, however**, that “Licensed Manufacturing Know-How” excludes (1) any Know-How relating to AMGEN’s or its Affiliates commercial manufacturing platform and (2) any Know-How solely relating to the research, development or manufacture of [\*\*\*].
- Section 1.63** “**Licensed Materials**” means those certain materials set forth on Table 1 of Exhibit A, all to the extent Controlled by AMGEN or its Affiliates as of the Effective Date.
- Section 1.64** “**Licensed MAB Program**” means AMGEN’s research and development activities prior to the Effective Date with respect to monospecific monoclonal antibody agonists of TREM2.
- Section 1.65** “**Licensed Patents**” means the Patent Rights Controlled by AMGEN or its Affiliates as of the Effective Date and set forth on Exhibit B.
- Section 1.66** “**Licensed Product**” means any pharmaceutical or biopharmaceutical product containing a Licensed Compound or Program Compound in any form or formulation, and optionally in combination with one or more other active agents.

- Section 1.67** “**Licensed Small Molecule Program**” means AMGEN’s research and development activities prior to the Effective Date with respect to small molecule agonists of TREM2.
- Section 1.68** “**Losses**” has the meaning set forth in Section 7.1.1 (By AMGEN).
- Section 1.69** “**MAB Product**” means a Product that contains a monoclonal antibody agonist of TREM2.
- Section 1.70** “**Marketing Approval**” means all approvals, licenses, registrations or authorizations of the Regulatory Authority in a country, necessary for the manufacture, use, storage, import, marketing and sale of the Product in such country.
- Section 1.71** “**MPA**” means that certain Amended and Restated Master Purchase Agreement dated [\*\*\*] by and between [\*\*\*] and [\*\*\*].
- Section 1.72** “[\*\*\*] **Period**” has the meaning set forth in Section 2.4 [\*\*\*].
- Section 1.73** “**Net Sales**” means, with respect to a certain time period, the gross invoiced sales prices charged for Products sold by or for VIGIL, its Affiliates and Sublicensees (the “**Selling Party**”) in arm’s length transactions to Third Parties during such time period, less the total of the following charges or expenses as determined in accordance with GAAP:
- (a) [\*\*\*]
  - (b) [\*\*\*]
  - (c) [\*\*\*]
  - (d) [\*\*\*]
  - (e) [\*\*\*]
  - (f) [\*\*\*]
  - (g) [\*\*\*]

Any disposal of Products for, or use of Products in, clinical or pre-clinical trials, given as free samples, or distributed for indigent programs shall not be included in Net Sales.

Upon any sale or other disposal of any Product that should be included within Net Sales for any consideration other than an exclusively monetary consideration on bona fide arm’s length terms, then for purposes of calculating the Net Sales under this Agreement, such Product shall be deemed to be sold exclusively for money at the average sales price during the applicable reporting period generally achieved for such Product in the country in which such sale or other disposal occurred when such Product is sold alone and not with other products.

Where a Product is sold together with another pharmaceutically active ingredient for a single price (including any combination product including the Product) (a “**Bundle**”), then for the purposes of calculating the Net Sales under this Agreement, such Product shall be deemed to be sold for an amount equal to  $(X/(X+Y)) * Z$ , where: X is the average sales price during the applicable reporting period for such Product being sold alone (in the same dosage form) (or, should more than one Product be included in a Bundle with a product other than a Product, the sum of such average sales prices for the included Products) in the particular country of sale; Y is the sum of the average sales price during the applicable reporting period in the particular country of sale, when sold alone, of each pharmaceutical (other than the included Product(s)) included in the Bundle (in the same dosage form); and Z equals the Net Sales of such Bundle. In the event that a Product or one or more of the other pharmaceuticals in the Bundle are not sold separately (in the same dosage form), the Parties will discuss in good faith to determine an equitable fair market price to apply to such Product or other pharmaceutical in the Bundle.

- Section 1.74** “**Order**” means a statement of work or work order under the MPA pursuant to which [\*\*\*] related to the manufacture of the Licensed Lead Antibody Compound drug substance.
- Section 1.75** “**Ongoing Studies**” means those preclinical research studies conducted by AMGEN and [\*\*\*] and ongoing as of the Effective Date, as listed on Exhibit G.
- Section 1.76** “**Ongoing Studies Agreement**” means that certain Preclinical Research Program Agreement by and between AMGEN and [\*\*\*] effective [\*\*\*].
- Section 1.77** “**Patent Rights**” means any provisional and non-provisional patents and patent applications, together with all additions, divisions, continuations, continuations-in- part, substitutions, and reissues claiming priority thereto, as well as any reexaminations, extensions, registrations, patent term extensions, supplemental protection certificates, renewals and the like with respect to any of the foregoing and all foreign counterparts thereof.
- Section 1.78** “**Party**” has the meaning set forth in the Preamble.
- Section 1.79** “**Payor**” means an organization, including without limitation its directors, officers, employees, contractors and agents, whether private or governmental (e.g., Centers for Medicare and Medicaid Services, Veterans Administration), that provides medical and/or pharmacy plans for covering and reimbursing patients and/or Healthcare Professionals from medical expenses incurred, including without limitation managed care organizations, pharmacy benefit managers, health maintenance organizations, other healthcare coverage providers, and any similar such organization.
- Section 1.80** “**Permitted CMO/CRO**” means (a) [\*\*\*] or (b) any other party deemed to be a Permitted CMO/CRO pursuant to the terms of Section 2.5.3.
- Section 1.81** “**Permitted CMO/CRO Agreement**” has the meaning set forth in Section 2.5.3(b).
- Section 1.82** “**Permitted CMO/CRO Request**” has the meaning set forth in Section 2.5.3(g).
- Section 1.83** “**Person**” means any corporation, limited or general partnership, limited liability company, joint venture, trust, unincorporated association, governmental body, authority, bureau or agency, any other entity or body, or an individual.

- Section 1.84** **“Product”** means any (1) Licensed Product, or (2) any Distracting Product (including, for clarity, a De Novo Product) that Vigil has elected to treat as a Newly Added Product pursuant to Section 5.4.2 on and after the date of such election.
- Section 1.85** **“Program Compound”** means any and all compounds (including both small molecule and monoclonal antibodies) that are discovered, researched or developed by VIGIL, its Affiliates or Sublicensees that [\*\*\*] and (a) the discovery, research, development, manufacture or commercialization of which incorporates or uses any (i) Exclusively Licensed Know-How, (ii) Licensed Compound (other than use as described in (z) below (i.e., any such Licensed Compound was not known to VIGIL to be included in a library of compounds used for screening)), or (iii) any improvement, modification, variant, derivative, salt, prodrug, polymorph or stereoisomer of any of the foregoing (i) - (ii), or (b) is Covered by a Licensed Patent. For clarification, a small molecule compound shall not be considered a Program Compound (and would instead be considered a De Novo Compound) if such small molecule (x) is not Covered by any Licensed Patent; (y) [\*\*\*]; and (z) results from and/or is identified by screening a library of compounds [\*\*\*], and, conversely, a small molecule compound would be considered a Program Compound if any of clauses (x), (y), or (z) were untrue. For further clarification, a monoclonal antibody shall not be considered a Program Compound (and would instead be considered a De Novo Compound) if such antibody (1) is produced with [\*\*\*], (2) [\*\*\*], and (3) has a lineage that is not derived from a Licensed Compound and, conversely, a monoclonal antibody would be considered a Program Compound if any of clauses (1), (2), or (3) were untrue.
- Section 1.86** **“Program Patent”** means Patent Rights (excluding the Licensed Patents) owned or licensed by VIGIL, its Affiliates or Sublicensees, as of the Effective Date or thereafter, that Cover [\*\*\*].
- Section 1.87** **“Proper Conduct Practices”** means, in relation to any Person, such Person and each of its Representatives, not, directly or indirectly, (a) making, offering, authorizing, providing or paying anything of value in any form, whether in money, property, services or otherwise to any Governmental Authority, Government Official, or other Person charged with similar public or quasi-public duties, or to any customer, supplier, or any other Person, or to any employee thereof, or failing to disclose fully any such payments in violation of the laws of any relevant jurisdiction to (i) obtain favorable treatment in obtaining or retaining business for it or any of its Affiliates, (ii) pay for favorable treatment for business secured, (iii) obtain special concessions or for special concessions already obtained, for or in respect of it or any of its Affiliates, in each case which would have been in violation of any Law, (iv) influence an act or decision of the recipient (including a decision not to act) in connection with the Person’s or its Affiliate’s business, (v) induce the recipient to use his or her influence to affect any government act or decision in connection with the Person’s or its Affiliate’s business, or (vi) induce the recipient to violate his or her duty of loyalty to his or her organization, or as a reward for having done so; (b) engaging in any transactions, establishing or maintaining any fund or assets in which it or any of its Affiliates shall have proprietary rights that have not been recorded in the books and records of it or any

of its Affiliates; (c) making any unlawful payment to any agent, employee, officer or director of any Person with which it or any of its Affiliates does business for the purpose of influencing such agent, employee, officer or director to do business with it or any of its Affiliates; (d) violating any provision of applicable Anti-Corruption Laws; (e) making any payment in the nature of bribery, fraud, or any other unlawful payment under the Law of any jurisdiction where it or any of its Affiliates conducts business or is registered; or (f) if such Person or any of its Representatives is a Government Official, improperly using his or her position as a Government Official to influence the award of business or regulatory approvals to or for the benefit of such Person, its Representatives or any of their business operations, or failing to recuse himself or herself from any participation as a Government Official in decisions relating to such Person, its Representatives or any of their business operations.

- Section 1.88** “**Purchaser**” means an individual or entity, including without limitation wholesalers, pharmacies, and group purchasing organizations, that purchase an Amgen Therapeutic Product to sell to members of the healthcare community or that are authorized to act as a purchasing agent for a group of individuals or entities who furnish healthcare services.
- Section 1.89** “**Transaction Notice**” has the meaning set forth in Section 2.4 [\*\*\*].
- Section 1.90** “**Receiving Party**” has the meaning set forth in Section 8.1.1 (Confidential Information).
- Section 1.91** “**Regulatory Authority**” means any Governmental Authority or other authority responsible for granting Marketing Approvals for the Product, including the FDA, European Commission/EMA and any corresponding national or regional regulatory authorities.
- Section 1.92** “**Regulatory Exclusivity**” means, with respect to the Product, any exclusive marketing rights or data exclusivity rights conferred by the applicable Regulatory Authority with respect to the Product other than a Patent Right.
- Section 1.93** “**Regulatory Filing**” means any all (a) submissions, material correspondence, notifications, registrations, licenses, authorizations, applications and other filings with any Governmental Authority with respect to the research, development, manufacture, distribution, pricing, reimbursement, marketing or sale of the Product and (b) Marketing Approvals for the Product.
- Section 1.94** “**Release**” has the meaning set forth in Section 8.2.2 (Review).
- Section 1.95** “**Representatives**” means, as to any Person, such Person’s Affiliates and its and their successors, owners, controlling Persons, directors, officers, employees, agents, representatives, subcontractors, or other third party acting for or on its behalf.
- Section 1.96** “**Reservation Agreement**” means that certain [\*\*\*], in the form substantially similar to that attached as Exhibit E.
- Section 1.97** “**Reservation Fee**” has the meaning set forth in the Reservation Agreement.
- Section 1.98** “**Reservation Agreement Process Consumables Fees**” means those amounts payable by [\*\*\*] under the Reservation Agreement in connection with [\*\*\*].



- Section 1.99** “**Reviewing Party**” has the meaning set forth in Section 8.2.2 (Review).
- Section 1.100** “**Royalty Term**” has the meaning set forth in Section 3.3.1 (Royalty Rate; Royalty Term).
- Section 1.101** “**Sale Transaction**” has the meaning set forth in Section 10.8 (Successors and Assigns).
- Section 1.102** “**Sanctioned Country**” means Cuba, Iran, Syria, North Korea, and the Crimea Region of Ukraine, and any other country or region subject to comprehensive sanctions under applicable Law.
- Section 1.103** “**Sanctioned Person**” means any natural or legal person (i) identified on the Specially Designated Nationals and Blocked Persons List administered by the U.S. Department of Treasury Office of Foreign Assets Control (OFAC), on the Entity List, the Unverified List, or the Denied Persons List administered by the U.S. Department of Commerce Bureau of Industry and Security (BIS), or on any equivalent lists maintained by the United Nations; (ii) fifty percent (50%) or greater owned, directly or indirectly, in the aggregate, or otherwise controlled by a person or persons described in clause (i); or (iii) that is organized, resident, or located in a Sanctioned Country.
- Section 1.104** “**Sensitive Manufacturing Know-How**” means highly confidential Licensed Manufacturing Know-How [\*\*\*].
- Section 1.105** “**Series A Financing**” means the funding of VIGIL through the sale of Series A Preferred Shares (as defined in the Financing Agreements) raising not less than [\*\*\*].
- Section 1.106** “**Significant Territorial Rights**” means rights to develop or commercialize a Product in (a) the [\*\*\*], (b) [\*\*\*] or (c) at least three (3) of the [\*\*\*].
- Section 1.107** “**Small Molecule Product**” means a Product that contains a small molecule agonist of TREM2.
- Section 1.108** “**Sublicensee(s)**” means any Person other than an Affiliate of VIGIL to which VIGIL has granted a sublicense under this Agreement.
- Section 1.109** “**Term**” has the meaning set forth in Section 9.1 (Term).
- Section 1.110** “**Territory**” means the entire world.
- Section 1.111** “**Third Party**” means a Person other than (a) AMGEN or any of its Affiliates and (b) VIGIL or any of its Affiliates.
- Section 1.112** “**Third Party Acquirer**” has the meaning set forth in Section 10.9 (Sale Transaction or AMGEN Acquisition).
- Section 1.113** “**TREM2**” means triggering receptor expressed on myeloid cells 2 (TREM2)
- Section 1.114** “**United States**” or “**U.S.**” means the United States of America, including its territories and possessions (including the District of Columbia and Puerto Rico).

- Section 1.115** “Valid Claim” means a claim of any issued and unexpired patent or patent application within the Licensed Patents or Program Patents and that has not been held invalid or unenforceable by a final decision of a court or governmental agency of competent jurisdiction, which decision can no longer be appealed or was not appealed within the time allowed; **provided, however**, that if a claim of a pending patent application within the Licensed Patents or Program Patents shall not have issued within [\*\*\*] years after the earliest filing date from which such claim takes priority, such claim shall not constitute a Valid Claim for the purposes of this Agreement unless and until a Patent Right issues with such claim (from and after which time the same would be deemed a Valid Claim).
- Section 1.116** “VAT” has the meaning set forth in Section 3.9.3 (VAT).
- Section 1.117** “VIGIL” has the meaning set forth in the Preamble.
- Section 1.118** “VIGIL Indemnified Parties” has the meaning set forth in Section 7.1.1 (By AMGEN).

## ARTICLE 2. LICENSE GRANT

**Section 2.1 Grant.** Subject to the terms and conditions of this Agreement, AMGEN hereby grants to VIGIL:

- (a) an exclusive (even as to AMGEN, but subject to Section 2.3), royalty bearing, sublicensable (but only in accordance with Section 2.2 (Sublicenses)), license under AMGEN’s rights in and to the Licensed Patents and
- (b) a non-exclusive, royalty bearing, sublicensable (but only in accordance with Section 2.2 (Sublicenses)) license under AMGEN’s rights in and to the Licensed Know-How and
- (c) an exclusive, (even as to AMGEN, but subject to Section 2.3), royalty bearing sublicensable (but only in accordance with Section 2.2 (Sublicenses)) license under AMGEN’s rights in and to the Exclusively Licensed Know-How,

in each case (a), (b) and (c), solely to Exploit Products in the Licensed Field in the Territory during the Term.

Notwithstanding the foregoing, the Licensed Know-How shall be sublicensable only in connection with the rights of VIGIL with respect to Products and not with respect to any other products or services. During the Term, neither AMGEN nor any of its Affiliates will enter into any agreement or otherwise license, grant, assign, transfer, convey, or otherwise encumber or dispose any right, title, or interest in or to any of the Licensed Patents or Licensed Know-How, which agreement, license, grant, assignment, transfer, conveyance, encumbrance, or disposition would conflict with the rights granted to VIGIL hereunder.

**Section 2.2 Sublicenses.** VIGIL shall be entitled, without the prior consent of AMGEN, to grant one or more sublicenses, in full or in part, by a written agreement to Third Parties (with the right to sublicense through multiple tiers), **provided, however**, that as a condition precedent to and requirement of any such sublicense: (a) any such permitted sublicense shall be consistent with and subject to the terms and conditions of this Agreement; and (b) VIGIL will continue to be responsible for full performance of VIGIL's obligations under the Agreement and will be responsible for all actions of such Sublicensee as if such Sublicensee were VIGIL hereunder. Notwithstanding the foregoing, (i) VIGIL shall have no right to grant any such sublicenses to research, develop or commercialize the Product prior to the expiration of [\*\*\*] without AMGEN's prior written consent, except to contractors acting in support of VIGIL's development efforts as described in Section 5.2 (Diligence); and (ii) VIGIL shall have no right to grant any such sublicenses, without AMGEN's prior written consent in its sole discretion, under any Licensed Manufacturing Know-How (except to a Permitted CMO/CRO in accordance with Section 2.5.3). For clarification, a Sublicensee shall not be obligated to comply with Section 2.4 [\*\*\*].

**Section 2.3 Retained Rights and Limitations.** Notwithstanding the licenses granted to VIGIL in this Article 2 (License Grant), AMGEN retains (1) a research-only right under AMGEN's rights in and to the Licensed Patents and Exclusively Licensed Know-How solely for AMGEN's research use as tool molecules, but expressly excluding any right for AMGEN to use Licensed Compounds or Exclusively Licensed Know-How to [\*\*\*], in each case for purposes of identifying therapeutic candidates, clinically develop, interact with any regulatory authority with respect to, or commercialize, any Licensed Compound or Program Compound; (2) all rights necessary for AMGEN (a) to continue collaboration with [\*\*\*] in accordance with the Ongoing Studies Agreement, (b) to complete activities contemplated by the Ongoing Studies Agreement and (c) to collaborate with [\*\*\*] to publish the results of the Ongoing Studies in accordance with Section 8.3; (3) all rights necessary for AMGEN to [\*\*\*] and license [\*\*\*] to conduct the Licensed Lead Antibody Compound manufacturing and related activities under the Order in accordance with Section 2.5.3; and (4) all rights necessary for AMGEN to [\*\*\*] and license [\*\*\*] to complete [\*\*\*] in accordance with Section 2.5.3(j) and for AMGEN to conduct [\*\*\*] as contemplated in Section 2.5.3(k).

**Section 2.4 [\*\*\*].**

**2.4.1** If VIGIL (or any assignee or surviving party) elects to [\*\*\*] for a Product with a Third Party (a "**Proposed Transaction**"), VIGIL will provide AMGEN with prompt written notice of such Proposed Transaction with appropriate detail of the structure and material details of such Proposed Transaction (the "**Transaction Notice**").

**2.4.2** If AMGEN desires to engage on the Proposed Transaction (e.g. to [\*\*\*]), then AMGEN will notify VIGIL thereof (the "**AMGEN Election Notice**") within [\*\*\*] of AMGEN's receipt of the Transaction Notice. If Amgen provides the AMGEN Election Notice within such time period, for [\*\*\*] following AMGEN's receipt of the Transaction Notice (the "[\*\*\*] **Period**"), AMGEN will have an exclusive right to [\*\*\*] such a Proposed Transaction. During the [\*\*\*] Period, VIGIL shall [\*\*\*] for such Proposed Transaction or related transaction between the Parties (an "**Acquisition Transaction**") and shall not [\*\*\*] from any Third Party that would interfere with such [\*\*\*]. If either (a) Amgen declines the opportunity to [\*\*\*] or fails to respond to the Transaction Notice with [\*\*\*] of receipt or (b) [\*\*\*], then VIGIL will be free to negotiate such Proposed Transaction for such Product with any Third Party and, provided a definitive agreement for such Proposed Transaction is executed within [\*\*\*] of the Transaction Notice (or, if AMGEN provides an AMGEN Election Notice, VIGIL will have a period of [\*\*\*]), VIGIL will have no

further obligations to Amgen under this Section 2.4 (subject to the terms of Section 2.2 (Sublicenses), as applicable) with respect to such Proposed Transaction. In the event VIGIL fails to enter into a definitive agreement for any Proposed Transaction in such [\*\*\*] period, Amgen's rights and VIGIL's obligations under Sections 2.4.1 and 2.4.2 will continue with respect to such Proposed Transaction.

**2.4.3** AMGEN's rights under Sections 2.4.1 and 2.4.2 will terminate upon an IPO or Change of Control of VIGIL.

**2.4.4** For the sake of clarity, the foregoing provision shall not apply to the grant of a sublicense to a contract manufacturer or a contract research organization solely for the purpose of manufacturing or developing a Product for VIGIL or to a Third Party distributor selling finished Product purchased from or on behalf of VIGIL.

## **Section 2.5 Transfer of Licensed Know-How and Licensed Materials.**

**2.5.1 Licensed Non-Manufacturing Know-How and Licensed Materials.** AMGEN shall transfer to VIGIL the Licensed Non-Manufacturing Know-How and Licensed Materials (other than [\*\*\*]) listed on Exhibit A, in accordance with a schedule specified on Exhibit A or as mutually agreed by the Parties (**provided**, the Parties will use reasonable efforts to ensure such transfer is completed within [\*\*\*] after the Effective Date). The Parties acknowledge that there are extensive documents, materials and information related to the Licensed Compounds, and that it is the intent of the Parties that the transfer of documents, materials and information hereunder be limited to that information within the Licensed Non-Manufacturing Know-How that are necessary or reasonably useful to VIGIL's Exploitation of Licensed Compounds. Accordingly, AMGEN shall not have any obligation to transfer to VIGIL any Licensed Non-Manufacturing Know-How or Licensed Materials other than those set forth on Exhibit A. AMGEN will provide notice to VIGIL when AMGEN has completed the transfer of all Licensed Non-Manufacturing Know-How and Licensed Materials listed in Exhibit A. Within ten (10) days of receipt of such notice VIGIL will confirm that such transfer is complete or will provide written notice to AMGEN of any remaining Licensed Non-Manufacturing Know-How or Licensed Materials that have not been transferred. In the event that VIGIL is unable to accept any Licensed Materials in such [\*\*\*] transfer period, AMGEN reserves the right to charge VIGIL for any further storage of such Licensed Materials at a rate reflecting AMGEN's costs and expenses with respect to such continued storage. In the event that VIGIL determines in good faith that any Licensed Non-Manufacturing Know-How or Licensed Materials other than those set forth on Exhibit A is [\*\*\*], [\*\*\*] or is [\*\*\*], the Parties shall in good faith discuss such necessity, and, if unable to agree, the issue will be escalated to each Party's designated representative for further discussion. If the Parties agree on the necessity of such Licensed Non-Manufacturing Know-How or Licensed Materials, AMGEN shall [\*\*\*], with such support subject to Section 2.5.2.

**2.5.2 Consulting Support.** AMGEN shall provide, [\*\*\*], Consulting Support with respect to the matters described in 2.5.1 in connection with [\*\*\*] until the earlier of (a) AMGEN has provided [\*\*\*] total of Consulting Support or (b) the [\*\*\*] ([\*\*\*)-month anniversary of the Effective Date. Without limiting the generality of the foregoing, Consulting Support will include [\*\*\*]. If VIGIL requires additional Consulting Support in excess of [\*\*\*], then VIGIL may request such additional Consulting Support in writing. AMGEN shall notify VIGIL within [\*\*\*] ([\*\*\*) days after receipt of such request whether it, in its sole discretion, is willing to provide such additional Consulting Support, which shall be at VIGIL's expense, at the FTE Rate for the relevant AMGEN employees.

**2.5.3 AMGEN Cell Line and Licensed Manufacturing Know-How.** With respect to AMGEN's transfer of the AMGEN Cell Line and Licensed Manufacturing Know-How, the Parties agree that the following procedures shall apply:

(a) [\*\*\*].

(i) Concurrent with the execution of this Agreement, Amgen [\*\*\*]. In connection with the execution of the [\*\*\*], VIGIL shall pay to [\*\*\*] the [\*\*\*], in each case in the time frames contemplated in the [\*\*\*]. Subject to AMGEN's receipt of the [\*\*\*] from VIGIL in such timeframes, AMGEN will [\*\*\*] to [\*\*\*] in accordance with the [\*\*\*].

(ii) Promptly following the Effective Date, [\*\*\*] will [\*\*\*] draft, review and align upon the contents of the Order outlining the specific activities to be undertaken by [\*\*\*] in connection with [\*\*\*], together with the applicable standards and specifications for the manufacture, testing, release and delivery such cGMP batch, to allow [\*\*\*] and [\*\*\*] to execute the Order no later than [\*\*\*]. The Order will include those items set forth in Exhibit H and such other items, if applicable, as may be agreed by the Parties and [\*\*\*].

(iii) Promptly following the execution of the Order, AMGEN shall undertake the transfer of the AMGEN Cell Line, related Licensed Manufacturing Know-How and related Licensed Materials to [\*\*\*] in connection with activities to take place under the Order. Amgen will [\*\*\*], in no instance will Amgen be obligated to [\*\*\*] ([\*\*\*]) in connection with activities under or related to the Order. The Parties anticipate that [\*\*\*]; provided, however, Amgen does not bear responsibility for the success or failure of [\*\*\*]. AMGEN shall continue to [\*\*\*] (both before and after the [\*\*\*] through [\*\*\*] until [\*\*\*] of such Licensed Lead Antibody Compound. VIGIL will use its Commercially Reasonable Efforts to support the activities under the Order and shall [\*\*\*] under the Order. Amgen has no further [\*\*\*] obligations after [\*\*\*] under the Order.

(iv) VIGIL shall be responsible for all fees and expenses of [\*\*\*] in connection with the Order, including for all activities described in Exhibit H and separately any fees resulting from additional items included in the Order and subsequent amendments or modifications to the Order. The Parties expect [\*\*\*] fees and expenses for the Order (for the activities described on Exhibit H) to be approximately \$[\*\*\*] (inclusive of [\*\*\*]). [\*\*\*] represents and warrants that the estimate set forth in Exhibit H reflects [\*\*\*] the costs of the activities described therein and [\*\*\*]. The Parties expect that until the Contractual Transition Date, [\*\*\*] in a time frame consistent with the payment terms of the Order and [\*\*\*]; provided, the Parties may mutually agree on an [\*\*\*] and that after the Contractual Transition Date, [\*\*\*].

(v) VIGIL shall use Commercially Reasonable Efforts to, as soon as reasonably practicable after the Effective Date, negotiate and enter into a binding agreement with [\*\*\*] (including a quality agreement) (the “[\*\*\*] Agreement”) to allow VIGIL to [\*\*\*] (such time point, the “Operational Transition Date”). After VIGIL [\*\*\*] with respect to such activities under [\*\*\*], Amgen will continue to [\*\*\*]; however, VIGIL will thereafter take lead responsibility for the [\*\*\*] under [\*\*\*]. The Parties expect, and [\*\*\*], such GMP documentation activities to take place in [\*\*\*]. Once the [\*\*\*] Agreement has been executed, [\*\*\*] (the “Contractual Transition Date”).

(vi) Each Party will bear its own internal costs and expenses in connection with performing activities under this Section 2.5.3(a), including for clarity, all activities each Party undertakes to support [\*\*\*] activities under the Order (such costs and expenses, the “[\*\*\*] Support Costs”); provide, however, in the event [\*\*\*].

(b) VIGIL must employ a Permitted CMO/CRO for any manufacturing or research related activities that require access to the AMGEN Cell Line or other Sensitive Manufacturing Know-How. The [\*\*\*] Agreement and VIGIL’s agreements with any other Permitted CMO/CRO that will have access to the AMGEN Cell Line or Sensitive Licensed Manufacturing Know-How shall provide for, among other things, (i) [\*\*\*]; provided, (ii) [\*\*\*], except as otherwise expressly contemplated in this Agreement and (iii) such additional provisions as are required to comply with the manufacturing and other limitations set forth in this Section 2.5.3 (such agreement, the “Permitted CMO/CRO Agreement”). Upon AMGEN’s reasonable request, VIGIL shall [\*\*\*]. For clarification, the requirement that VIGIL employ a Permitted CMO/CRO and enter into a Permitted CMO/CRO Agreement apply with respect to the use of the AMGEN Cell Line or other Sensitive Manufacturing Know-How (including the manufacture of drug substance) but does not apply with respect to other contract manufacturing or contract research activities that do not involve the use [\*\*\*]. For clarity, without Amgen’s express written approval, VIGIL is not authorized to and shall [\*\*\*] and all VIGIL use and access to [\*\*\*] will be pursuant to a confidentiality agreement pursuant to clause (e) of this section. For further clarification, VIGIL may arrange for storage of the AMGEN Cell Line at such Third Party storage facility as VIGIL may determine and that is approved by Amgen in writing as a Permitted CMO/CRO.

(c) VIGIL acknowledges that the transfer of the [\*\*\*] to the Permitted CMO/CRO is solely to [\*\*\*]. Notwithstanding the foregoing or anything to the contrary, except as contemplated below, Amgen shall not be required to transfer any Manufacturing Know-How relating to [\*\*\*]; however, (1) AMGEN expressly permits VIGIL to engage [\*\*\*] to perform the [\*\*\*] and other contract research organizations that are Permitted CMO/CROs for any [\*\*\*] that may be necessary to support any Regulatory Filings with respect to the Licensed Product containing Licensed Lead Antibody Compound and (2) AMGEN agrees to provide reasonable samples of [\*\*\*] directly to any such Permitted CMO/CRO to facilitate such assays or tests. VIGIL shall receive the data and reports from such assays or tests conducted by such Permitted CMO/CROs and, without Amgen’s express written approval, VIGIL is not authorized to and shall not [\*\*\*].

(d) VIGIL agrees that it shall not, and it shall use Commercially Reasonable Efforts to cause the Permitted CMO/CRO not to: (i) reverse engineer or otherwise deconstruct the [\*\*\*], or to determine or to seek to determine [\*\*\*], other than as expressly required to manufacture the Licensed Lead Antibody Compound or a Licensed Product containing the Licensed Lead Antibody Compound; (ii) [\*\*\*], other than as expressly permitted under this Agreement or as may be expressly required to conduct the assays and tests contemplated in clause (c); (iii) notwithstanding anything to the contrary in Section 8.3.1 (Right to Publish), publish or otherwise publicly disclose the [\*\*\*]; or (iv) permit [\*\*\*] to a Third Party or any of its Affiliates, other than as expressly required to manufacture the Licensed Lead Antibody Compound or a Licensed Product containing the Licensed Lead Antibody Compound or [\*\*\*] (provided such access or transfer is in accordance with this Agreement). AMGEN agrees to provide VIGIL with [\*\*\*] by a Permitted CMO/CRO in accordance with this Agreement from AMGEN or from an AMGEN-approved vendor on reasonable and customary commercial terms.

(e) Upon VIGIL's written request (and in any event prior to Amgen providing to VIGIL [\*\*\*]), the Parties shall enter into the supplemental confidentiality agreement in the form attached hereto on Exhibit E to ensure that [\*\*\*] provided to VIGIL shall be limited to [\*\*\*], each of whom need such information for purposes of [\*\*\*] for the Licensed Product containing the Licensed Lead Antibody Compound and [\*\*\*] (such [\*\*\*], the "**Clean Team**," and such purpose, the "**Manufacturing Know-How Purpose**") and that such [\*\*\*] shall be used solely for the Manufacturing Know-How Purpose. Prior to providing [\*\*\*] to [\*\*\*] of the Clean Team, the identity of such [\*\*\*] shall be provided to Amgen, and VIGIL shall enter into written agreements with such [\*\*\*] containing confidentiality and non-use provisions no less restrictive than those contained in Section 8.1 (Confidential Information) ("**[\*\*\*] Confidentiality Agreement**"). Any act or omission of any such [\*\*\*] that would be a breach of its [\*\*\*] Confidentiality Agreement shall be deemed a breach of this Agreement by VIGIL (and treated as if VIGIL breached Article 8). Upon the request of either Party, the Parties shall discuss in good faith and establish other reasonable arrangements, systems and protocols to ensure that [\*\*\*] provided to VIGIL will be disclosed or made available only to the Clean Team and will be used by such Clean Team solely for the Manufacturing Know-How Purpose.

(f) In the event [\*\*\*], VIGIL shall first seek support for such request from the Permitted CMO/CRO and, to the extent that the Permitted CMO/CRO (or another applicable contract manufacturing or contract research organization) is unable to provide the necessary support [\*\*\*], Amgen will [\*\*\*].

(g) In the event of a VIGIL Change of Control, VIGIL shall ensure that the acquiror, successor or Sublicensee, as applicable, holds the same rights and obligations as VIGIL in respect of [\*\*\*] (including, without limitation, with respect to establishing and abiding by the supplemental confidentiality agreement described above). For clarity, any such acquirer, successor or Sublicensee shall, as a condition to gaining access [\*\*\*], enter into a supplemental confidentiality agreement with Amgen in the form attached hereto on Exhibit E subject to such revisions as AMGEN may reasonably implement taking into account specific concerns arising with regard to the acquiror, successor or Sublicensee.

(h) Upon a termination or expiration of the Permitted CMO/CRO Agreement (including, for clarity the [\*\*\*] Agreement and including as a result of the appointment, with prior written notice to AMGEN, by VIGIL of a replacement Permitted CMO/CRO), the Permitted CMO/CRO shall, as directed by VIGIL, promptly return any [\*\*\*] to AMGEN or shall transfer [\*\*\*] to the replacement Permitted CMO/CRO. If, at any time, VIGIL desires to add a new Third Party contract manufacturer or contract research organization to Exhibit C, it shall notify AMGEN in writing (a “**Permitted CMO/CRO Request**”), and AMGEN shall have the right, for [\*\*\*] ([\*\*\*]) days after receipt of such Permitted CMO/CRO Request [\*\*\*]. If AMGEN rejects a Permitted CMO/CRO Request pursuant to the foregoing, it will notify VIGIL thereof (and its reasons therefor). [\*\*\*].

(i) Notwithstanding anything in this Agreement to the contrary, AMGEN shall have no obligation under this Agreement to transfer to VIGIL, its Affiliates or any Third Party any [\*\*\*], except as expressly provided in this Section 2.5.3.

(j) Promptly following the Effective Date, the Parties will cooperatively arrange for the transfer from AMGEN to VIGIL of all rights and obligations to [\*\*\*] at [\*\*\*] (“[\*\*\*]”). Each Party will [\*\*\*], however, AMGEN does not bear responsibility for the success or failure of [\*\*\*]. AMGEN shall [\*\*\*]. AMGEN covenants to VIGIL that AMGEN will (i) comply with the applicable agreement(s) with [\*\*\*] to the extent [\*\*\*], (ii) will promptly provide to VIGIL or VIGIL’s designated representative all [\*\*\*]; (iii) will not amend or waive its rights under the applicable agreement(s) with [\*\*\*] in a way that affects the [\*\*\*] without Vigil’s consent, (iv) [\*\*\*] under or with respect to the applicable agreement(s) with [\*\*\*]. Without limiting the generality of the foregoing, (a) any Patent Rights or Know-How arising under the applicable agreement(s) with [\*\*\*], arising from [\*\*\*] and Controlled by AMGEN shall constitute Licensed Patents or Licensed Know-How under this Agreement. AMGEN is responsible for (and shall pay) the [\*\*\*] fees and expenses incurred on or before the Effective Date and VIGIL is responsible for (and shall pay) such fees and expenses arising after the Effective Date. VIGIL shall use Commercially Reasonable Efforts to enter into a Permitted CMO/CRO Agreement with [\*\*\*] (the “[\*\*\*] **Agreement**”) as soon as reasonably practicable after the Effective Date to allow VIGIL to assume primary operational and contractual responsibilities with respect to [\*\*\*]. Until such time as VIGIL has entered into the [\*\*\*] Agreement, VIGIL will [\*\*\*] under AMGEN’s agreement with [\*\*\*] to AMGEN (in accordance with Section 3.4) in a time frame consistent with [\*\*\*] the AMGEN-[\*\*\*] agreement and AMGEN will [\*\*\*]; provided, the Parties may mutually agree on [\*\*\*]. After such time as VIGIL has entered into the [\*\*\*] Agreement and the Parties have transitioned the contractual responsibilities for [\*\*\*] to VIGIL, VIGIL will make payments [\*\*\*] directly to [\*\*\*].



(k) Amgen will [\*\*\*]. Once VIGIL has entered into the [\*\*\*] Agreement, AMGEN will [\*\*\*].

#### **2.5.4 Limited Warranties.**

(a) VIGIL acknowledges that any materials transferred by AMGEN to VIGIL (or the Permitted CMO/CRO) under this Agreement are experimental in nature and may have unknown characteristics (including the hazardous and toxicological properties) and therefore agrees to use prudence and reasonable care in the use, handling, storage, transportation and disposition and containment of any such materials. Accordingly, no such materials, shall be used in any human application, including any clinical trial.

(b) AMGEN is the sole and exclusive owner of and has good and valid title to the [\*\*\*]. Upon delivery to the Permitted CMO/CRO selected by VIGIL (and/or Third Party storage facility as VIGIL may designate), VIGIL will acquire good and valid title to such [\*\*\*] free and clear of all liens. AMGEN will provide to VIGIL (and [\*\*\*], if applicable), a data sheet with respect to [\*\*\*], which data sheet shall to Amgen's knowledge, include accurate and complete information with respect to testing and analysis conducted by or on behalf of AMGEN with respect to such material. AMGEN will also provide to VIGIL a data sheet (e.g., a record of analysis) with respect to certain [\*\*\*] and provided to VIGIL for which such data sheet is available, which data sheet shall, to Amgen's knowledge, include accurate and complete information with respect to testing and analysis, if any, conducted by or on behalf of AMGEN with respect to such material.

(c) EXCEPT AS SET FORTH IN SECTION 2.5.4(b), ALL MATERIAL IS BEING SUPPLIED TO VIGIL WITH NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. VIGIL HEREBY ACKNOWLEDGES AND AGREES THAT ANY ANALYSIS OF THE REPORT OR RESULTS, OR OTHER DATA, PROVIDED BY AMGEN ARE, EXCEPT AS SET FORTH IN SECTION 2.5.4(b), PROVIDED "AS IS" WITH NO WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THEY ARE FREE FROM THE RIGHTFUL CLAIM OF ANY THIRD PARTY, BY WAY OF INFRINGEMENT OR THE LIKE.

**Section 2.6 Covenant Not to Sue.** Upon the closing of the Series A Financing and the grant of the AMGEN Shares pursuant to the Financing Agreements, [\*\*\*]. For purposes of this Section 2.6, Amgen Affiliates includes any Acquirees; provided, that [\*\*\*].

**Section 2.7 No Other Rights.** VIGIL acknowledges that the rights and licenses granted under this Article 2 (License Grant) and elsewhere in this Agreement are limited to the scope expressly granted. Accordingly, except for the rights expressly granted under this Agreement, no right, title, or interest of any nature whatsoever is granted whether by implication, estoppel, reliance, or otherwise, by AMGEN to VIGIL. All rights that are not specifically granted herein are reserved to AMGEN. For clarity, except as stated below with respect to Licensed Lead Antibody Compound drug substance inventory and consumables included within the Licensed Materials, the transfer under this Agreement of Licensed Know-How and Licensed Material (including the AMGEN Cell Line) shall constitute a transfer of possession together with a limited license to use such Licensed Know-How and Licensed Materials (including the AMGEN Cell Line) as contemplated under this Agreement and shall not constitute a transfer in title in and to such Licensed Know-How and Licensed Materials (including the AMGEN Cell Line). The transfer of Licensed Lead Antibody Compound drug substance inventory and consumables within the Licensed Materials constitutes a transfer of all right, title and interest in and to such materials, provided that VIGIL may use such materials solely to Exploit Licensed Products in accordance with this Agreement.

**Section 2.8 Restrictions.** During the term of the definitive agreement, VIGIL shall not challenge the validity of any of the Licensed Patents. VIGIL agrees (on behalf of itself and its Affiliates), and shall cause each of its Sublicensees and contract manufacturers to agree as a condition to the grant of a sublicense, (a) not to Exploit any Licensed Know-How or Licensed Patents for any products other than a Product and (b) not to Exploit the [\*\*\*] or any Sensitive Manufacturing Know-How other than for the manufacture of the Licensed Lead Antibody Compound or a Licensed Product containing the Licensed Lead Antibody Compound and as permitted by this Article 2.

### ARTICLE 3. EQUITY, MILESTONES, ROYALTIES AND PAYMENTS

**Section 3.1 Equity in VIGIL.** As partial consideration for the rights granted to VIGIL hereunder, at each closing of the Series A Financing (until such time as VIGIL has raised \$45,000,000) and in accordance with the Financing Agreements and the Equity Side Letter, VIGIL shall issue to AMGEN an amount of Series A preferred shares such that Amgen's equity ownership in VIGIL will be equal to twenty-five percent (25%) of the fully-diluted equity interests in VIGIL post-closing (until such time as VIGIL has raised \$45,000,000, with all such shares, whether issued at the first closing or thereafter comprising the "AMGEN Shares").

#### **Section 3.2 Upfront and Milestone Payments.**

**3.2.1 Upfront Payment.** As partial consideration for the rights granted to VIGIL hereunder, VIGIL shall pay AMGEN a one-time non-creditable, non-refundable upfront payment of Five Hundred Thousand Dollars (\$500,000) within ten (10) days of the Effective Date, of which [\*\*\*] ([\*\*\*) shall constitute full and complete payment for the Licensed Lead Antibody Compound drug substance and all other items of tangible personal property (i) included in the Licensed Material and sold to VIGIL or (ii) otherwise transferred to VIGIL hereunder.

**3.2.2 Milestone Payments.** As partial consideration for the rights granted to VIGIL hereunder, VIGIL shall pay AMGEN the following non-creditable, non-refundable payments (described in the table below under the column “Milestone Payment” and each such payment, a “**Milestone Payment**”) within [\*\*\*] ([\*\*\*)] days following the date that each milestone (described in the table below under the column “Milestone”) is achieved by VIGIL, its Affiliates or Sublicensees:

	Milestone	Milestone Payment
1	[***]	[***] (\$[***)]
2	[***]	[***] (\$[***)]
3	[***]	[***] (\$[***)]
Each of Milestone Payments numbers 1-3 are payable no more than twice in total: once for the first MAB Product achieving the applicable Milestone and once for the first Small Molecule Product achieving the applicable Milestone.		
4	[***]	[***] (\$[***)]
5	[***]	[***] (\$[***)]
6	[***]	[***] (\$[***)]
7	[***]	[***] (\$[***)]
5	[***]	[***] (\$[***)]
6	[***]	[***] (\$[***)]

VIGIL will provide AMGEN with prompt written notice of the accomplishment of each such Milestones and the corresponding Milestone Payment.

**Section 3.3 Royalties.**

**3.3.1 Royalty Rate; Royalty Term.** On a Product-by-Product basis, VIGIL shall pay to AMGEN the following tiered royalties on annual Net Sales of each Product sold by a Selling Party during the Royalty Term applicable to such Product:

- (a) [\*\*\*] percent ([\*\*\*)%) on the portion of annual Net Sales of such Product less than [\*\*\*] U.S. Dollars (\$[\*\*\*)];
- (b) [\*\*\*] percent ([\*\*\*)%) on the portion of annual Net Sales of such Product equal to or greater than [\*\*\*] U.S. Dollars (\$[\*\*\*)] but less than [\*\*\*] U.S. Dollars (\$[\*\*\*)];
- (c) [\*\*\*] percent ([\*\*\*)%) on the portion of annual Net Sales of such Product that is equal to or greater than [\*\*\*] U.S. Dollars (\$[\*\*\*)] but less than [\*\*\*] U.S. Dollars (\$[\*\*\*)]; and

(d) [\*\*\*] percent ([\*\*\*]%) on the portion of annual Net Sales of such Product that is equal to or greater than [\*\*\*] U.S. Dollars (\$[\*\*\*]).

Royalties will be payable on a quarterly basis; any such payments shall be made within [\*\*\*] ([\*\*\*]) days after the end of the calendar quarter during which the applicable Net Sales occurred. VIGIL's obligation to pay royalties with respect to each Product in a particular country shall commence upon the First Commercial Sale of such Product in such country and shall expire on a country-by-country and Product-by-Product basis on the later of (i) the date on which the Exploitation of such Product is no longer Covered by a Valid Claim of a Licensed Patent or Program Patent in such country or (ii) the tenth (10<sup>th</sup>) anniversary of the First Commercial Sale of such Product in such country (the "**Royalty Term**").

### **3.3.2 Royalty Reductions.**

(a) On a country-by-country basis, in the event that the Exploitation of a Licensed Product is not Covered by a Valid Claim of a [\*\*\*] in such country, then the royalty rates set forth in Section 3.3.1 (Royalty Rate; Royalty Term) with respect to Net Sales for such Licensed Product in such country shall be reduced by [\*\*\*] effective as of the date such Licensed Product is no longer Covered by a Valid Claim of a [\*\*\*] in such country.

(b) On a country-by-country basis, in the event that the Exploitation of a Product is not Covered by either (1) a Valid Claim of a [\*\*\*] or (2) a Valid Claim of a [\*\*\*] in such country, then the royalty rates set forth in Section 3.3.1 (Royalty Rate; Royalty Term) with respect to Net Sales for such Product in such country shall be reduced by [\*\*\*] effective as of the date such Product is no longer Covered by a Valid Claim of a [\*\*\*] in such country.

(c) On a country-by-country basis, in the event that one or more Generic Products to a Small Molecule Product is launched in any country in the Territory during the Royalty Term for such Small Molecule Product in such country, and the average quarterly Net Sales of such Small Molecule Product in such country during the subsequent [\*\*\*] ([\*\*\*]) Calendar Quarters decrease by more than [\*\*\*] percent ([\*\*\*]%) of the average quarterly Net Sales of such Small Molecule Product in such country during the [\*\*\*] ([\*\*\*]) Calendar Quarters immediately preceding the Calendar Quarter in which the first Generic Product is launched in such country, the royalty rates provided in Section 3.3.1 for such Small Molecule Product shall be reduced in such country by [\*\*\*] for each Calendar Quarter in the remainder of such Royalty Term. For the purposes of this Section 3.3.2(c), the term "launched" shall refer to the listing of a wholesale acquisition cost (WAC) price for the Generic Product on the applicable pricing compendium.

**3.3.3 Third Party Royalties.** If VIGIL, its Affiliates or any Sublicensee is required by (a) a future order by a court of competent jurisdiction, (b) settlement agreement, (c) license or contract, or (d) other legally binding commitment to make royalty payments to a Third Party, in each case in exchange for a license or other right under Patent Rights held by such Third Party and such license or other rights are necessary for the Exploitation of any Licensed Compound or

Program Compound that is derived from a Licensed Compound and the Exploitation of such Licensed Compound would also require a license to such Patent Rights in a given country, then VIGIL shall be entitled to deduct from royalties due to AMGEN under this Agreement with respect to Net Sales on all Licensed Products containing such Licensed Compound or Program Compound in a given Calendar Quarter in each such country an amount equal to [\*\*\*] of the royalties actually paid to such Third Party in such Calendar Quarter as consideration for such license under such Patent Rights, up to a maximum amount of [\*\*\*] of the royalties due to AMGEN in each affected country in such Calendar Quarter.

**3.3.4 Maximum Reduction.** Notwithstanding anything to the contrary, the maximum aggregate reduction with respect to royalties payable on any Product in any calendar quarter during the applicable Royalty Term in any country pursuant to Section 3.3.2 (Royalty Reductions) and Section 3.3.3 (Third Party Royalties) shall be [\*\*\*].

**3.3.5 Mutual Convenience of the Parties.** The royalty and other payment obligations set forth hereunder have been agreed to by the Parties for the purpose of reflecting and advancing their mutual convenience, including the ease of calculating and paying royalties and other amounts to AMGEN.

**Section 3.4 Method of Payment. [\*\*\*]**

[\*\*\*]  
[\*\*\*]  
[\*\*\*]  
[\*\*\*]  
[\*\*\*]

**Section 3.5 Royalty Reports.** After the First Commercial Sale of the first Product and until expiration of the last Royalty Term, VIGIL shall prepare and deliver to AMGEN royalty reports of the sale of the Products by the Selling Parties for each calendar quarter within forty-five (45) days of the end of each such calendar quarter specifying in the aggregate and on the Product-by-Product and country-by-country basis: (a) total gross amounts for each Product sold or otherwise disposed of by a Selling Party; (b) amounts deducted by category in accordance with the definition of "Net Sales" in Article 1 (Definitions) from gross amounts to calculate Net Sales; (c) Net Sales; and (d) royalties payable.

**Section 3.6 Currency Conversion.** With respect to Net Sales invoiced in U.S. Dollars, such Net Sales invoiced shall be expressed in U.S. Dollars. With respect to Net Sales invoiced in a currency other than U.S. Dollars, such Net Sales invoiced shall be converted into the U.S. Dollar equivalent using a rate of exchange which corresponds to the rate used by the Selling Party in recording such receipt, for the respective reporting period, related to recording such Net Sales in its books and records that are maintained in accordance with GAAP. If a Selling Party is not required to perform such currency conversion for its GAAP reporting with respect to the applicable period, then for such period such Selling Party shall convert its amounts received into U.S. Dollars using a rate of exchange which corresponds to the noon buying rate as published in the Wall Street Journal, Eastern U.S. Edition on the second to last business day of the Calendar Quarter (or such other publication as agreed-upon by the Parties). Any royalty amount shall be calculated based upon the U.S. Dollar equivalent calculated in accordance with the foregoing.

**Section 3.7 Late Payments.** In the event that any payment due hereunder is not made when due, the payment shall accrue interest beginning on the day following the due date thereof, calculated at the annual rate of the sum of (a) [\*\*\*] plus (b) the prime rate effective for the date that payment was due, as published by the Wall Street Journal, Eastern U.S. Edition, the interest being compounded on the last day of each calendar quarter; **provided, however**, that in no event shall said annual interest rate exceed the maximum rate permitted by Law. Each such payment when made shall be accompanied by all interest so accrued. Said interest and the payment and acceptance thereof shall not negate or waive the right of any Party to seek any other remedy, legal or equitable, to which it may be entitled because of the delinquency of any payment including, but not limited to termination of this Agreement as set forth in Article 10 (Term & Termination).

**Section 3.8 Records and Audits.** VIGIL will keep complete and accurate records of the underlying revenue and expense data relating to the calculations of Net Sales generated in the then current calendar year and payments required under this Agreement, and during the preceding three (3) calendar years. AMGEN will have the right, once annually at its own expense, to have a nationally recognized, independent, certified public accounting firm, selected by it and subject to VIGIL's prior written consent (which shall not be unreasonably withheld), review any such records of VIGIL and its Affiliates and Sublicensees (the "**Audited Party**") in the location(s) where such records are maintained by the Audited Party upon reasonable written notice (which shall be no less than thirty (30) days' prior written notice) and during regular business hours and under obligations of strict confidence, for the sole purpose of verifying the basis and accuracy of payments made under Section 3.3 Section 3.1 (Royalties) within the thirty-six (36) month period preceding the date of the request for review. No calendar year or portion thereof will be subject to audit under this Section more than once. VIGIL will receive a copy of each such report concurrently with receipt by AMGEN. Should such inspection lead to the discovery of a discrepancy to AMGEN's detriment, VIGIL will, within forty-five (45) days after receipt of such report from the accounting firm, pay any undisputed amount of the discrepancy together with interest at the rate set forth in Section 3.7 (Late Payments). AMGEN will pay the full cost of the review unless the underpayment of amounts due to AMGEN is [\*\*\*] for the entire period being examined, in which case VIGIL will pay the cost charged by such accounting firm for such review. Should the audit lead to the discovery of a discrepancy to VIGIL's detriment, VIGIL may credit the amount of the discrepancy, without interest, against future payments payable to AMGEN under this Agreement, and if there are no such payments payable, then AMGEN shall pay to VIGIL the amount of the discrepancy, without interest, within [\*\*\*] days of AMGEN's receipt of the report.

**Section 3.9 Taxes.**

**3.9.1 Use Tax.** VIGIL is responsible for the payment of any state or local sales or use, or similar fees or taxes arising as a result of the transfer of Licensed Materials, including, specifically the Licensed Lead Antibody Compound drug substance inventory and consumables within the Licensed Materials, by AMGEN to VIGIL pursuant to Section 2.5 (Transfer of Licensed Know-How and Licensed Materials), and VIGIL will remit such fees or taxes to the proper taxing jurisdiction, when deemed taxable by VIGIL. To the extent VIGIL is unable to complete and file any required tax returns or other tax documents relating to such fees or taxes itself, the Parties will

cooperate in completing and filing such returns or documents relating to such fees or taxes. VIGIL will deliver to AMGEN a MA Resale Certificate (ST-4) or MA Exemption Certificate (ST-12), as may be applicable to the transfer of the Licensed Materials. The Parties shall use their respective commercially reasonable efforts to deliver and receive the Licensed Materials, as appropriate, through electronic delivery (other than Licensed Lead Antibody Compound drug substance and any other tangible inventory included in the Licensed Material) or in such other manner reasonably calculated in accordance with applicable law, and take all other commercially reasonable actions necessary, to minimize or avoid the incurrence of any such taxes or fees.

**3.9.2 Withholding.** In the event that any Law requires VIGIL to withhold taxes with respect to any payment to be made by VIGIL pursuant to this Agreement, VIGIL will notify AMGEN of such withholding requirement prior to making the payment to AMGEN and provide such assistance to AMGEN, including the provision of such standard documentation as may be required by a tax authority, as may be reasonably necessary in AMGEN's efforts to claim an exemption from or reduction of such taxes. VIGIL will, in accordance with such Law withhold taxes from the amount due, remit such taxes to the appropriate tax authority, and furnish AMGEN with proof of payment of such taxes within thirty (30) days following the payment. If taxes are paid to a tax authority, VIGIL shall provide reasonable assistance to AMGEN to obtain a refund of taxes withheld, or obtain a credit with respect to taxes paid. Taxes withheld pursuant to this Section 3.9.2 will be treated as payments to AMGEN hereunder, and shall reduce payments otherwise required to be made to AMGEN by the amount withheld.

**3.9.3 VAT.** All payments due to AMGEN from VIGIL pursuant to this Agreement shall be paid exclusive of any value-added tax ("VAT") (which, if applicable, shall be payable by VIGIL upon receipt of a valid VAT invoice). If AMGEN determines that it is required to report any such tax, VIGIL shall promptly provide AMGEN with applicable receipts and other documentation necessary or appropriate for such report. For clarity, this Section 3.9.3 (VAT) is not intended to limit VIGIL's right to deduct value-added taxes in determining Net Sales.

**3.9.4 Tax Treatment of Equity and Payments.**

(a) AMGEN and VIGIL intend to treat the issuance to AMGEN of the AMGEN Shares and the payment of any Milestone Payments and any royalties pursuant to this Article 3 as consideration for the transfer of Licensed Patents and Licensed Know-How to VIGIL for U.S. federal income Tax purposes (and applicable state, local or non-U.S. Tax purposes).

(b) AMGEN and VIGIL intend to treat the transfer of the Licensed Patents and Licensed Know-How to VIGIL in exchange for the AMGEN Shares, any Milestone Payments and any royalties pursuant to this Article 3 as part of an integrated transaction constituting a transfer described in Section 351 of the U.S. Internal Revenue Code of 1986, as amended (the "Code") and any analogous provision of applicable state, local or non-U.S. law, and agree that the fair market value of the AMGEN Shares as of the issuance date thereof shall be equal to the product of the price per share paid by investors for such shares multiplied by the number of shares issued to AMGEN.

(c) AMGEN and VIGIL intend to treat the issuance of the AMGEN Shares issued after the first closing and the payment of any Milestone Payments or royalties under this Agreement as additional consideration in respect of the transfer of the Licensed Patents and Licensed Know-How to VIGIL for U.S. federal income tax purposes and for applicable state, local and non-U.S. purposes as part of an integrated transaction constituting a transfer described in Section 351 of the Code and any analogous provision of applicable state, local or non-U.S. law, and agree that the AMGEN shares issued at or after the initial closing of the Series A Financing shall have a fair market value equal to the product of the price per share paid by investors for such shares multiplied by the number of shares issued to AMGEN.

(d) AMGEN and VIGIL shall file all Tax returns, reports, schedules, information statements and other documents consistently with the understandings set forth in this Section 3.9.4, and shall take no contrary position on any such Tax return, or in any audit, claim, investigation or proceeding in respect of Taxes unless otherwise by applicable Federal, state, local or non-U.S. law.

(e) AMGEN represents that the Licensed Patents, the Licensed Know How and any other property contributed or licensed to VIGIL pursuant to this Agreement (i) constitute "property" within the meaning of Section 351 of the Code and (ii) do not have an adjusted tax basis for applicable tax purposes in AMGEN's hands.

(f) AMGEN (i) will not elect out of the installment method of reporting under Section 453 of the Code with respect to the transactions set forth in this Agreement and (ii) represents and warrants to VIGIL that Section 362(e)(2)(C) of the Code does not and will not apply to the transactions set forth in this Agreement.

## ARTICLE 4. PATENT PROSECUTION, MAINTENANCE, & INFRINGEMENT

### Section 4.1 Intellectual Property Ownership.

**4.1.1** Except to the extent expressly specified to the contrary in this Agreement: (i) each Party shall retain and own all right, title, and interest in and to all Patent Rights, trade secrets, proprietary rights and other intellectual property rights (collectively "**Inventions**") conceived or created solely by such Party; (ii) the Parties shall jointly own all right, title, and interest in and to Inventions conceived or created jointly by the Parties pursuant to this Agreement ("**Joint Inventions**") and, subject to the provisions of this Agreement, neither Party shall have any duty to account or obtain the consent of the other Party (such consent deemed given hereunder) in order to exploit, license or assign its respective rights in Joint Inventions; and (iii) inventorship and authorship of any Invention or work of authorship conceived or created by either Party or jointly by the Parties pursuant to this Agreement, shall follow the rules of the U.S. Patent and Trademark Office and the Laws of the U.S. (without reference to any conflict of law principles). For clarification, any interest of AMGEN in or with respect to Joint Inventions shall constitute Licensed Patents or Licensed Know-How, as the case may be, licensed to VIGIL pursuant to the terms of this Agreement.



4.1.2 Notwithstanding the foregoing, all right, title, and interest in and to Inventions exclusively related to Program Compounds (and any associated Patent Rights) shall be owned exclusively by VIGIL regardless of inventorship. Amgen hereby assigns to VIGIL all of its entire right and title in any Program Compounds and inventions related thereto.

#### **Section 4.2 Prosecution and Maintenance.**

4.2.1 VIGIL shall have the first right to file, prosecute and maintain all Patent Rights specified under Licensed Patents and Program Patents at VIGIL's sole expense using outside counsel selected by VIGIL and reasonably acceptable to AMGEN. VIGIL will use Commercially Reasonable Efforts to prepare, file, prosecute, defend and maintain all Patent Rights specified under Licensed Patents and Program Patents. AMGEN shall reasonably cooperate with VIGIL's requests for data, affidavits, and other information and assistance to support prosecution and maintenance of the Patent Rights in the Licensed Patents; **provided, however**, that VIGIL shall reimburse AMGEN for its reasonable, documented out-of-pocket expenses with respect to such cooperation. VIGIL shall promptly upon receipt forward to AMGEN copies of any significant office actions, communications, and correspondence relating to the Licensed Patents and Program Patents. AMGEN shall have the right to comment on and to discuss prosecution and maintenance activities with VIGIL, and VIGIL shall consider the same in good faith. For purpose of clarity, VIGIL may at its discretion file new patent applications for Program Patents and may include in such applications data or discoveries included within the Licensed Know-How; provided, however, VIGIL, its Affiliates and Sublicensees may not file patent applications claiming any AMGEN Cell Line or any Licensed Manufacturing Know-How.

4.2.2 Notwithstanding the foregoing, if VIGIL declines to file, prosecute or maintain any Patent Rights, elects to allow any Patent Rights to lapse in any country, or elects to abandon any Patent Rights (in each case to the extent contained in the Licensed Patents or Program Patents) before all appeals within the respective patent office have been exhausted (each, an "**Abandoned Patent Right**"), then:

- (a) VIGIL shall provide AMGEN with reasonable notice of such decision so as to permit AMGEN to decide whether to file, prosecute or maintain such Abandoned Patent Rights and to take any necessary action (which notice shall, in any event, be given no later than [\*\*\*] ([\*\*\*) days prior to the next deadline for any action that may be taken with respect to such Abandoned Patent Right with the U.S. Patent & Trademark Office or any foreign patent office).
- (b) AMGEN, at AMGEN's expense, may assume control of the filing, prosecution and/or maintenance of such Abandoned Patent Rights.
- (c) AMGEN shall have the right to transfer the responsibility for such filing, prosecution and maintenance of such Abandoned Patent Rights to patent counsel (outside or internal) selected by AMGEN.
- (d) VIGIL shall assist and cooperate with AMGEN's reasonable requests to support prosecution and maintenance of such Abandoned Patent Rights; provided, however, that AMGEN shall reimburse VIGIL for its reasonable expenses with respect to such cooperation (including VIGIL's employee's time at the FTE Rate).

(e) In the event a patent issues with respect to any such Abandoned Patent Rights, AMGEN shall provide reasonable notice to VIGIL thereof and such Abandoned Patent Right shall be excluded from the license granted by AMGEN to VIGIL under Section 2.1 (Grant), unless VIGIL (i) reimburses AMGEN for its reasonable, documented, internal and external costs and expenses related to the prosecution and maintenance of such Abandoned Patent Right within [\*\*\*] ([\*\*\*)] days of notice of issuance of any such patent and (ii) assumes, in writing, the responsibility for the continued prosecution and maintenance of such Patent Rights in accordance with the provisions of Section 4.1 (Prosecution and Maintenance). For the avoidance of doubt, the Abandoned Patent Rights shall not be excluded from the license granted by AMGEN to VIGIL under Section 2.1 (Grant) unless and until after expiry of the [\*\*\*] ([\*\*\*)] day period referred to under (i) above and if VIGIL elects not to exercise its rights under (i) and (ii) above.

#### **Section 4.3 Enforcement.**

**4.3.1 VIGIL Enforcement.** Each Party will notify the other promptly in writing when any Infringement of a Licensed Patent or a Program Patent by a Third Party is uncovered or reasonably suspected. VIGIL shall have the first right to enforce any patent within the Licensed Patents or Program Patents against any Infringement or alleged Infringement thereof, and shall at all times keep AMGEN informed as to the status thereof. VIGIL may, at its own expense, institute suit against any such infringer or alleged infringer and control and defend and settle such suit in a manner consistent with the terms and provisions hereof and recover any damages, awards or settlements resulting therefrom, subject to Section 4.5 (Recovery). AMGEN shall reasonably cooperate in any such litigation (including joining or being named a necessary party thereto) at VIGIL's expense. VIGIL shall not enter into any settlement of any claim described in this Section 4.3.1 (VIGIL Enforcement) that admits to the invalidity or unenforceability of the Licensed Patents or Program Patents, incurs any financial liability on the part of AMGEN or requires an admission of liability, wrongdoing or fault on the part of AMGEN, without AMGEN's prior written consent, in each case, such consent not to be unreasonably withheld.

**4.3.2 AMGEN Enforcement.** If VIGIL elects not to enforce any patent within the Licensed Patents or Program Patents, then it shall so notify AMGEN in writing within [\*\*\*] ([\*\*\*)] months of receiving notice that an Infringement exists (or such shorter period as may be necessary to prevent exhaustion of a statute of limitations (or laches) applicable to such Infringement). VIGIL shall consider in good faith a request by AMGEN to at its own expense, take steps to enforce any such patent and control, settle, and defend such suit in a manner consistent with the terms and provisions hereof. If AMGEN pursues such action, it may recover any damages, awards or settlements resulting therefrom, subject to Section 4.5 (Recovery). VIGIL shall reasonably cooperate in any such litigation (including joining or being named a necessary party thereto) at AMGEN's expense. AMGEN shall not enter into any settlement of any claim described in this Section 4.3.2 (AMGEN Enforcement) that admits to the invalidity or unenforceability of the Licensed Patents or Program Patents, incurs any financial liability on the part of VIGIL or requires an admission of liability, wrongdoing or fault on the part of VIGIL without VIGIL's prior written consent.

**4.3.3 Progress Reports.** The Party initiating or defending any such enforcement action (the “**Enforcing Party**”) shall keep the other Party reasonably informed of the progress of any such enforcement action, and such other Party shall have the individual right to participate with counsel of its own choice at its own expense.

**Section 4.4 Defense of Third Party Claims.** If either (a) any Licensed Product Exploited by or under authority of VIGIL becomes the subject of a Third Party’s claim or assertion of Infringement of a patent relating to the manufacture, use, sale, offer for sale or importation of such Licensed Product in the Licensed Field in the Territory, or (b) a declaratory judgment action is brought naming either Party as a defendant and alleging invalidity or unenforceability of any of the Licensed Patents or Program Patents, the Party first having notice of the claim or assertion shall promptly notify the other Party, and the Parties shall promptly confer to consider the claim or assertion and the appropriate course of action. Subject to Article 8 (Indemnification), unless the Parties otherwise agree in writing, each Party shall have the right to defend itself against a suit that names it as a defendant (the “**Defending Party**”). Neither Party shall enter into any settlement of any claim described in this Section 4.4 that admits to the invalidity or unenforceability of the Licensed Patents or, Program Patents, incurs any financial liability on the part of the other Party, requires an admission of liability, wrongdoing or fault on the part of the other Party or, without such other Party’s prior written consent, in each case, such consent not to be unreasonably withheld. In any event, the other Party shall reasonably assist the Defending Party and cooperate in any such litigation at the Defending Party’s request and expense.

**Section 4.5 Recovery.** Except as otherwise provided, the costs and expenses of the Party bringing suit under Section 4.3 (Enforcement) shall be borne by such Party, and any damages, settlements or other monetary awards recovered shall be shared as follows: (a) the amount of such recovery actually received by the Party controlling such action shall first be applied to the out-of-pocket costs of each Party in connection with such action; and then (b) the remainder of the recovery shall be shared as follows:

- (i) If VIGIL is the Enforcing Party, [\*\*\*]; and
- (ii) If AMGEN is the Enforcing Party, [\*\*\*].

**Section 4.6 Patent Term Extensions and Filings for Regulatory Exclusivity Periods.** VIGIL will advise AMGEN when it is considering any patent term extension or supplementary protection certificates or their equivalent for the Licensed Patents. AMGEN will cooperate with VIGIL in the preparation and filing of any patent term extension application with respect to the Licensed Patents. With respect to any patent listings required for any Regulatory Exclusivity for a Licensed Product, [\*\*\*].

**Section 4.7 Patent Marking.** VIGIL will mark, and will cause all other Selling Parties to mark, the Licensed Product with all Licensed Patents in accordance with applicable Law, which marking obligation will continue for as long as (and only for as long as) required under applicable Law.

## ARTICLE 5. OBLIGATIONS OF THE PARTIES

**Section 5.1 Responsibility.** Following the Effective Date and at all times during the Term (except as expressly stated otherwise herein), VIGIL shall be solely responsible for, and shall bear all costs associated with, the research, development and commercialization of the Products in the Territory, including regulatory, manufacturing, distribution, marketing and sales activities. Subject to the express written terms of this Agreement, all decisions concerning the development, marketing and sales of Products in the Territory including the clinical and regulatory strategy, design, sale, price and promotion of Products covered under this Agreement shall be within the sole discretion of VIGIL.

**Section 5.2 Diligence.** VIGIL shall (directly and/or through one or more Affiliates and/or Sublicensees) use Commercially Reasonable Efforts to develop, manufacture, gain Marketing Authorization and commercialize at least one (1) MAB Product and at least one (1) Small Molecule Product in each of the [\*\*\*]. Within twelve (12) months of the Effective Date, VIGIL will prepare and provide to AMGEN a development plan for the MAB Product and [\*\*\*] (which development plans shall describe generally the activities for conducting development with respect to such Products under this Agreement, including by specifying activities to be conducted and anticipated development activities for the Products). For the purpose of clarity, VIGIL may from time to time amend each development plan in its sole discretion. VIGIL shall notify AMGEN immediately upon obtaining Marketing Approval for the Product in each country.

**Section 5.3 Reports.** Within [\*\*\*] of the beginning of each Calendar Year, VIGIL shall submit to AMGEN a report providing the status of VIGIL's and its Affiliates' and Sublicensees' activities related to the research and development of and Marketing Approval for the MAB Products and the Small Molecule Products during the [\*\*\*], and plans for future activities related to the research and development of and Marketing Approval for the MAB Products and the Small Molecule Products during [\*\*\*], in each case in relation to the last updated development plan, as may be applicable, including any updates to the related clinical plans.

### **Section 5.4 Distracting Programs.**

**5.4.1 Distracting Programs.** Except as set forth in Section 5.4.3 (Post-Effective Date Affiliates) and 5.4.4 (Termination or Divestiture) and subject to Section 5.4.2 (VIGIL Election), during the Term until the [\*\*\*] anniversary of the First Commercial Sale of the first Licensed Product in the [\*\*\*], VIGIL shall not (and shall ensure its Affiliates and Sublicensees do not) directly or indirectly conduct, enable, or participate in any Distracting Program. For clarity, any failure of any VIGIL Affiliate or Sublicensee to comply with this Section 5.4.1 shall be deemed a breach by VIGIL.

#### **5.4.2 VIGIL Election.**

(a) **Distracting Program.** In the event that VIGIL or its Affiliates gains rights to a Distracting Program, then VIGIL shall provide prompt written notice (in all events within fifteen days of gaining such rights) to AMGEN and include in such notice whether VIGIL elects to treat all such related Distracting Product(s) as "Product(s)" under this Agreement.

(b) De Novo Compounds. In the event that VIGIL or its Affiliates gains rights to a De Novo Compound or De Novo Product, then VIGIL shall provide prompt written notice (promptly following the filing of any patent application with respect to a De Novo Compound or De Novo Product and in all cases before any Licensed Patent or Licensed Know How is used or practiced in connection with such De Novo Compound or De Novo Product) to AMGEN and include in such notice whether VIGIL elects to treat any such De Novo Compound and related De Novo Product as a “Product” under this Agreement.

(c) Newly Added Products. If VIGIL makes such election in such notice, then any such Distracting Product (including, for clarity, a De Novo Compound) will thereafter be considered a “Product” for purposes of this Agreement (a “**Newly Added Product**”) and would cease to be considered a “Distracting Product” giving rise to a “Distracting Program” that is prohibited under Section 5.4.1. VIGIL’s exploitation of the Newly Added Product would be subject to all diligence and reporting obligations under this Agreement as well as Milestone Payment and royalty obligations contemplated under this Agreement in each case from and after the time such Product becomes a Newly Added Product (for clarification, there shall be no obligation to make any back-payment of Milestone Payments that would have been triggered by such Newly Added Product had such Newly Added Product been considered a “Product” at the time such Milestone occurred). Any Patent Rights controlled by VIGIL or its Affiliates (including, for clarity, any in-licensed Patent Rights) Covering such Newly Added Product would be considered “Program Patents” for purposes of determining the Royalty Term, royalties, royalty reductions (for clarification, the [\*\*\*] reduction under Section 3.3.2(a) would be inapplicable) and milestone payment obligations applicable to such Newly Added Product.

**5.4.3 Post-Effective Date Affiliates**. In the event that VIGIL or its Affiliates enters into a Distracting Transaction with a Third Party (and for clarity, VIGIL has not elected to treat such Distracting Product as a Newly Added Product pursuant to Section 5.4.2), then VIGIL shall provide prompt written notice to AMGEN. Until the provisions of Section 5.4.4 (Termination or Divestiture) are effectuated, VIGIL shall ensure that information and materials relating to the Product or activities hereunder are not shared with or used for the benefit of, and are sequestered from, Distracting Transaction Affiliate(s).

**5.4.4 Termination or Divestiture**. The notice provided pursuant to Section 5.4.3 (Post-Effective Date Affiliates) shall include a notification as to whether VIGIL intends to: (a) Divest the Distracting Program, in which case VIGIL shall hold separate such Distracting Program (including ensuring that no manufacturing, process development, research, or clinical development personnel working on the Product or activities hereunder works on a Distracting Program (and vice versa), and ensuring that information from the Product (including all Licensed Know-How) or activities hereunder is sequestered from manufacturing, process development, research, or clinical development personnel working on the Distracting Program (and vice versa)) and use its commercially reasonable, good-faith efforts to Divest such Distracting Program; or (b) terminate such Distracting Program, in which case VIGIL shall terminate all manufacturing, clinical development and/or commercialization activities of such program within [\*\*\*] days after the

closing of the Distracting Transaction (provided that any ongoing clinical studies may continue if necessary or advisable for patient safety and provided further than out-licensing and similar business development efforts may continue), during which period VIGIL shall hold separate such Distracting Program (including ensuring that no manufacturing, process development, research, or clinical development personnel working on the Product(s) or activities hereunder works on a Distracting Program (and vice versa), and ensuring that information from the Product or activities hereunder is sequestered from manufacturing, process development, research, or clinical development personnel working on the Distracting Program (and vice versa)). In the event VIGIL elects to Divest the Distracting Program under subsection (a) and fails to complete such Divestiture within [\*\*\*] of the closing of the Distracting Transaction, then VIGIL shall be deemed to have chosen to terminate such Distracting Program and shall promptly, and no later than within [\*\*\*] days, comply with the requirements of subsection (b), above.

**Section 5.5 Amgen Restrictions.** During the Term until the [\*\*\*] of the Effective Date, AMGEN will not and will ensure its Affiliates do not directly or indirectly conduct, enable, or participate in the research (other than the use as tool molecules), manufacture, clinical development or commercialization of any [\*\*\*] that binds to TREM2 [\*\*\*] and [\*\*\*]. Except in connection with the Ongoing Studies, AMGEN will not and will ensure its Affiliates do not directly or indirectly [\*\*\*] that (x) binds to TREM2 [\*\*\*] and (y) includes complementarity-determining region (CDRs) [\*\*\*] (without regard to intended therapeutic use). [\*\*\*]

**Section 5.6 Reasonable Restrictions.** Each of the Parties acknowledges that the provisions of Sections 5.4 (Distracting Programs) and 5.5 (Amgen Restrictions) are reasonable and necessary to protect the legitimate interests of the other Party and to encourage the free sharing of information between the Parties with respect to the Products and each of the Parties agrees not to contest such limitations in any proceeding.

## ARTICLE 6. REPRESENTATIONS

**Section 6.1 Mutual Representations and Warranties.** Each of AMGEN and VIGIL represent and warrant that:

- (a) it is duly organized and validly existing under the Law of the jurisdiction of its formation, and has full power and authority to enter into this Agreement and to carry out the provisions hereof;
- (b) it is duly authorized to execute and deliver this Agreement and to perform its obligations hereunder, and the individual executing this Agreement on its behalf has been duly authorized to do so by all requisite action;
- (c) it shall comply with all applicable Law (including applicable Law relating to data protection and privacy), Proper Conduct Practices, and Anti-Corruption Laws in connection with the performance of its rights, duties and obligations under this Agreement; and
- (d) this Agreement is legally binding upon it and enforceable in accordance with its terms. The execution, delivery and performance of this Agreement by it does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, nor violate any material applicable Law.

**Section 6.2 Additional AMGEN Warranties.** AMGEN warrants to VIGIL that, as of the Effective Date (except with respect to clause (f) below):

- (a) AMGEN has full legal or beneficial title and ownership to the Licensed Patents listed on Exhibit B as is necessary to grant the licenses to VIGIL to such Licensed Patents that AMGEN grants pursuant to this Agreement;
- (b) AMGEN has the rights necessary to grant the licenses to VIGIL to Licensed Know-How that AMGEN grants pursuant to this Agreement;
- (c) The Patent Rights included in the Licensed Patents are not subject to any liens or encumbrances and AMGEN has not granted to any Third Party any rights or licenses under such Patent Rights and has not granted to any Third Party any rights or licenses under such Licensed Know-How that would conflict with the licenses granted to VIGIL hereunder including, for clarity under any research or manufacturing agreements entered into by AMGEN with respect to the Licensed Compounds. No patent application or registration within the Licensed Patents is the subject of any pending interference, opposition, cancellation or patent protest pursuant to 37 C.F.R. §1.291 or any foreign counterpart;
- (d) No Third Party has made any claim or allegation to AMGEN or its Affiliates in writing that a Third Party has any right or interest in or to the Licensed Patents listed on Exhibit B; and
- (e) To the knowledge of AMGEN's patent litigation attorneys and patent attorneys involved in the prosecution or management of the Licensed Patents, no claim or litigation has been brought or threatened in writing by any Third Party alleging that (i) the Licensed Patents are invalid or unenforceable or (ii) the manufacture, sale, offer for sale, or importation of Licensed Product in the Licensed Field in the Territory infringes or misappropriates or would infringe or misappropriate any Patent Rights or other right of any Third Party;
- (f) The compounds listed on Exhibit D comprise all compounds that: (a) are Controlled by AMGEN or its Affiliates; (b)(1) for a monoclonal antibody, binds to TREM2 [\*\*\*] and has agonist activity on TREM2 [\*\*\*] and (2) for a small molecule, binds to TREM2 and has agonist activity on TREM2 [\*\*\*]; and (c) were discovered, researched or developed in the conduct of the Licensed MAB Program or the Licensed Small Molecule Program by AMGEN or its Affiliates prior to the Effective Date.
- (g) Exhibit A attached hereto lists a complete and accurate list of all final reports or electronic lab notebook entries for all completed preclinical studies related to the Licensed Compounds conducted by or on behalf of AMGEN and its Affiliates prior to the Effective Date. Such studies were conducted in accordance with applicable legal and professional standards.

(h) As of the Effective Date, neither AMGEN, its Affiliates nor its respective employees, agents or contractors have employed or otherwise used in any capacity in connection with the development of the Licensed Compound the services of any Person debarred or excluded under United States Law, including under 21 U.S.C. § 335a and 42 U.S.C. § 1320a-7(a), or any foreign equivalent thereof, including any Person that has been: (i) debarred by the FDA (or subject to a similar sanction of a Regulatory Authority), or that is subject of an FDA debarment investigation or proceeding (or similar proceeding of a Regulatory Authority), or is otherwise ineligible to participate in federal healthcare programs or federal procurement or non-procurement programs; or (ii) has been convicted of a criminal offense that falls within the scope of 42 U.S.C. § 1320a-7(a), but has not yet been excluded, debarred, suspended or otherwise declared ineligible.

**Section 6.3 Disclaimer.** EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS ARTICLE 6 (REPRESENTATIONS) OR, WITH RESPECT TO AMGEN, SECTIONS 2.5.3(a)(iv), 2.5.4 AND 3.9.4(e) and (f), NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR VALIDITY OF PATENT CLAIMS. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION MADE OR WARRANTY GIVEN BY EITHER PARTY THAT EITHER PARTY WILL BE SUCCESSFUL IN OBTAINING ANY PATENT RIGHTS, OR THAT ANY PATENTS WILL ISSUE BASED ON A PENDING APPLICATION. WITHOUT LIMITING THE RESPECTIVE RIGHTS AND OBLIGATIONS OF THE PARTIES EXPRESSLY SET FORTH HEREIN, EACH PARTY SPECIFICALLY DISCLAIMS ANY GUARANTEE THAT THE PRODUCTS WILL BE SUCCESSFUL, IN WHOLE OR IN PART.

**Section 6.4 Additional VIGIL Warranties.** VIGIL warrants to AMGEN that, as of the Effective Date:

- (a) Neither VIGIL nor its directors, officers or employees have been debarred, excluded or the subject of debarment or exclusion proceedings by any Governmental Authority;
- (b) Neither VIGIL nor its officers or directors are Sanctioned Persons, nor are they owned fifty percent (50%) or more individually, or in the aggregate by, or Controlled by, any Sanctioned Person;
- (c) VIGIL has established and maintains (or shall establish within 180 days of the Effective Date and thereafter maintain) reasonable internal policies and controls, including codes of conduct and ethics and reasonable reporting requirements, intended to ensure compliance with Anti-Corruption Laws, International Trade Laws and other applicable Law, to the extent applicable to VIGIL under the laws of the jurisdiction of its incorporation, including healthcare compliance, privacy laws and data protection laws; and
- (d) VIGIL is not a Covered Individual and Entity.



**Section 6.5 VIGIL Covenants.** VIGIL covenants to AMGEN that:

(a) it will conduct, and will cause its contractors to conduct, all preclinical and clinical studies for the Product and manufacturing of the Product, in accordance with (i) all U.S. Laws and the Laws of the country in which such clinical studies are conducted, and (ii) the known or published standards of the FDA and the Regulatory Authority in such country, including but not limited to good laboratory practice, good clinical practice, and current good manufacturing practices. Neither VIGIL, nor any officer, employee or agent of VIGIL, will knowingly make an untrue statement of a material fact to any Regulatory Authority with respect to the Product (whether in any submission to such Regulatory Authority or otherwise), and neither will knowingly fail to disclose a material fact required to be disclosed to any Regulatory Authority with respect to the Product;

(b) it (and its Affiliates) will use Commercially Reasonable Efforts to not employ or otherwise use in any capacity the services of any Person debarred or excluded under United States Law, including under 21 U.S.C. § 335a and 42 U.S.C. § 1320a-7(a), or any foreign equivalent thereof, including any Person that has been: (i) debarred by the FDA (or subject to a similar sanction of a Regulatory Authority), or that is subject of an FDA debarment investigation or proceeding (or similar proceeding of a Regulatory Authority), or is otherwise ineligible to participate in federal healthcare programs or federal procurement or non-procurement programs; or (ii) has been convicted of a criminal offense that falls within the scope of 42 U.S.C. § 1320a-7(a), but has not yet been excluded, debarred, suspended or otherwise declared ineligible;

(c) if, during any period in which AMGEN owns [\*\*\*] or more of the outstanding voting shares of VIGIL, VIGIL becomes aware that any Person employed or retained by it to perform any of its obligations under, or services related to, this Agreement: (i) comes under investigation by the FDA, or a similar Regulatory Authority, (ii) is debarred, excluded, suspended, disqualified or subject to a similar sanction of a Regulatory Authority, or (iii) engages in any conduct or activity that could lead to any of the aforementioned actions or similar sanctions of a Regulatory Authority, VIGIL shall immediately notify AMGEN;

(d) it shall comply with all applicable Law, International Trade Law, Proper Conduct Practices, and Anti-Corruption Laws in connection with the performance of its rights, duties and obligations under this Agreement;

(e) upon reasonable request, it shall provide AMGEN with any information under its control that is required by Amgen to comply with International Trade Laws;

(f) it shall, during any period in which Amgen owns [\*\*\*] ([\*\*\*]%) or more of the outstanding voting shares of VIGIL, promptly provide AMGEN with written notice upon receiving a formal notification that it is the target of a formal or informal request for information, subpoena, investigation, litigation, penalty, or claim from any Governmental Authority, for violation or potential violation of any applicable Anti-Corruption Law, International Trade Laws or Proper Conduct Practices;

(g) during any period in which AMGEN owns [\*\*\*] ([\*\*\*]%) or more of the outstanding voting shares of VIGIL, prior to beginning any commercialization of any Product under this Agreement, each of its employees, agents, independent contractors or Affiliates involved in the commercialization of any Product shall be required to undergo compliance training with respect to Proper Conduct Practices and Anti-Corruption Laws;

(h) it shall use only legitimate and ethical business practices (including Proper Conduct Practices) in connection with activities conducted in connection with this Agreement whether directly, through the use of Representatives or otherwise, and shall not take any action that would subject any other Party to penalties under any applicable Law;

(i) it shall cause Affiliates under its control and its and their officers, directors, employees and agents engaged in activities involving Product to comply with this Agreement, including the covenants in this Section 6.5;

(j) (i) it shall comply with all applicable U.S. Laws prohibiting the re-export, directly or indirectly, of certain controlled U.S.-origin items without a license to parties located in certain countries or appearing on certain U.S. Government lists of restricted parties; (ii) it shall comply with all applicable U.S. Laws prohibiting participation in non-U.S. boycotts that the United States does not support; (iii) it shall comply with all applicable U.S. Laws prohibiting the sale of products to parties from any country subject to U.S. economic sanctions or who are identified on related U.S. Government lists of restricted parties; (iv) it shall use Commercially Reasonable Efforts to comply with all applicable International Trade Laws, and (v) it shall use Commercially Reasonable Efforts to comply with all applicable data privacy laws of the applicable jurisdiction, including the General Data Protection Regulation (Regulation (EU) 2016/679), and all data breach notification and information securities laws and regulations specific thereto; and

(k) as of the Effective Date to and through the expiration or termination of this Agreement, (i) it, and, to the best of its knowledge, its Representatives, shall not, directly or indirectly, offer, pay, promise to pay, or authorize such offer, promise or payment, of anything of value, to any Person for the purposes of obtaining or retaining business through any improper advantage in connection with this Agreement, or that would otherwise violate any applicable Laws, rules and regulations concerning or relating to public or commercial bribery or corruption, (ii) that its books, accounts, records and invoices related to this Agreement or related to any work conducted for or on behalf of the other Party are and will be complete and accurate, and (iii) that AMGEN may terminate this Agreement if (a) VIGIL or VIGIL's Representatives fails to comply with the Anti-Corruption Laws or with this provision, or (b) AMGEN has a good faith belief that VIGIL or VIGIL's Representatives has violated, intends to violate, or has caused a violation of the Anti-Corruption Laws. AMGEN may request from time to time that VIGIL complete a compliance certification regarding the foregoing; and

(l) if VIGIL engages one or more Covered Individuals and Entities contributes to or performs any of VIGIL obligations hereunder (including the performance of clinical research with respect to a Product or in the commercialization of a Product), payments made by or on behalf of VIGIL to each such Covered Individual and Entity or other compensation or consideration received by each such Covered Individual and Entity on account of its contributions to or performance of any of VIGIL obligations hereunder shall comply with all applicable Law, including, to the extent provided for in applicable Law, (i) represent fair market value, (ii) not be determined in a manner that takes into account the volume or value of any future business that might be generated between the Parties, and (iii) not be construed to require a Covered Individual and Entity to promote, purchase, prescribe, or otherwise recommend an Amgen Therapeutic Product being marketed or under development. If VIGIL is or becomes a Covered Individual and Entity or if VIGIL becomes, owned, operated or controlled by one or more Covered Individuals and Entities, VIGIL shall notify AMGEN of such and, after receipt of such notification or upon VIGIL becoming a Covered Individual and Entity, VIGIL agrees that AMGEN shall have the right, upon notice to VIGIL, to initiate good faith negotiations with VIGIL to modify the terms of this Agreement as may be reasonably necessary or appropriate to address AMGEN's bona fide concerns with respect to compliance by AMGEN's or, as applicable, one or more of its Affiliate's requirements for interactions with a Covered Individual and Entity. VIGIL will give good faith consideration to any reasonable request, provided that nothing shall be construed to require VIGIL to increase any payment obligations, to reduce the scope of the intellectual property rights licensed hereunder or to incur additional costs or expenses to satisfy AMGEN's requests. VIGIL will not unreasonably refuse to meet any additional reporting or documentation obligations, provided that it may deduct the reasonable costs of meeting any such obligations from amounts otherwise payable hereunder. Additionally and without limiting any other rights or remedies of AMGEN, if on or after the Effective Date, VIGIL, is or becomes, a Covered Individual and Entity or is, or becomes, owned, operated or controlled by a Covered Individual and Entity, AMGEN shall have the right to assign this Agreement immediately, and AMGEN shall not be liable to VIGIL for any costs, expenses, or losses arising out of such assignment. For purposes of this section, "owned, operated or controlled" shall mean that one or more Covered Individual and Entities is in a position to direct or control the performance of VIGIL's obligations hereunder, or that one or more Covered Individuals and Entities is in a position to direct or control VIGIL's management or operations, including, without limitation, when a Covered Individual and Entity owns a majority of the voting power or other equity interests in VIGIL.

**Section 6.6 AMGEN Covenants.** AMGEN covenants to VIGIL that until the completion of the Ongoing Studies and all activities related thereto: It will (i) comply with the Ongoing Studies Agreement to the extent implicating to the Licensed Compounds, (ii) it will promptly provide to VIGIL or VIGIL's designated representative all study reports, invention disclosures, data and proposed presentations or manuscripts provided by [\*\*\*] pursuant to the Ongoing Studies Agreement with respect to the Licensed Compounds or otherwise arising from the Ongoing Studies; (iii) will not amend or waive its rights under the Ongoing Studies Agreement in a way that affects the Ongoing Studies or with respect to the Licensed Compounds without Vigil's consent, (iv) take measures reasonably requested by Vigil to provide Vigil with the benefits of AMGEN's rights associated with the Licensed Compounds under or with respect to the Ongoing Studies Agreement. Without limiting the generality of the foregoing, (a) any Patent Rights or Know-How arising under the Ongoing Studies and Controlled by AMGEN shall constitute Licensed Patents or Licensed Know-How under this Agreement and (b) if VIGIL desires to obtain a license to any intellectual property rights of [\*\*\*] associated with the Licensed Compounds, AMGEN shall use reasonable efforts to assist VIGIL to obtain such license.

## ARTICLE 7. INDEMNIFICATION

### Section 7.1 Indemnity.

**7.1.1 By AMGEN.** AMGEN agrees to defend VIGIL and its (and its Affiliates') directors, officers, employees and agents (the "**VIGIL Indemnified Parties**") at AMGEN's cost and expense, and will indemnify and hold VIGIL and the other VIGIL Indemnified Parties harmless from and against any claims, losses, costs, damages, fees or expenses (including legal fees and expenses) (collectively, "**Losses**") to the extent resulting from any Third Party claim (including product liability claims) arising out of or otherwise relating to (a) the negligence or willful misconduct of AMGEN or its Affiliates in connection with its activities under this Agreement, (b) the material breach of this Agreement or the representations and warranties made hereunder by AMGEN, except, in the case of each of (a) or (b) of this Section 7.1.1 (By AMGEN), to the extent such Losses result from clause (a), (b) or (c) of Section 7.1.2 (By VIGIL). In the event of any such claim against the VIGIL Indemnified Parties by a Third Party, the foregoing indemnity obligations shall be conditioned upon (x) VIGIL promptly notifying AMGEN in writing of the claim (**provided, however,** that any failure or delay to notify shall not excuse any obligations of AMGEN except to the extent AMGEN is actually materially prejudiced thereby) and (y) VIGIL granting AMGEN sole management and control, at AMGEN's sole expense, of the defense of the claim and its settlement (**provided, however,** that AMGEN shall not settle any such claim without the prior written consent of VIGIL if such settlement does not include a complete release from liability or if such settlement would involve VIGIL undertaking an obligation (including the payment of money by a VIGIL Indemnified Party), would bind or impair a VIGIL Indemnified Party, or includes any admission of wrongdoing or that any intellectual property or proprietary right of VIGIL (including rights licensed hereunder from AMGEN) or this Agreement is invalid, narrowed in scope or unenforceable), and (z) the VIGIL Indemnified Parties reasonably cooperating with AMGEN (at AMGEN's expense). The VIGIL Indemnified Parties may, at their option and expense, be represented in any such action or proceeding by counsel of their own choosing.

**7.1.2 By VIGIL.** VIGIL agrees to defend AMGEN and its (and its Affiliates') directors, officers, employees and agents (the "**AMGEN Indemnified Parties**") at VIGIL's cost and expense, and will indemnify and hold AMGEN and the other AMGEN Indemnified Parties harmless from and against any Losses to the extent resulting from any Third Party claim (including product liability claims) arising out of or otherwise relating to (a) the negligence or willful misconduct of VIGIL, its Affiliates, or their respective Sublicensees in connection with its activities under this Agreement, (b) the material breach of this Agreement or the representations, warranties and covenants made hereunder by VIGIL, or (c) the Exploitation of any Product by or on behalf of VIGIL, its Affiliates, or their respective Sublicensees (including from product liability and intellectual property infringement claims); except, in each case, to the extent such Losses result from clause (a) or (b) of Section 7.1.1 (By AMGEN). In the event of any such claim against the AMGEN Indemnified Parties by a Third Party, the foregoing indemnity obligations shall be conditioned upon (x) AMGEN promptly notifying VIGIL in writing of the claim (**provided, however**, that any failure or delay to notify shall not excuse any obligation of VIGIL except to the extent VIGIL is actually materially prejudiced thereby) and (y) AMGEN granting VIGIL sole management and control, at VIGIL's sole expense, the defense of the claim and its settlement (**provided, however**, that VIGIL shall not settle any such claim without the prior written consent of AMGEN if such settlement does not include a complete release from liability or if such settlement would involve undertaking an obligation (including the payment of money by an AMGEN Indemnified Party), would bind or impair an AMGEN Indemnified Party, or includes any admission of wrongdoing or that any intellectual property or proprietary right of AMGEN (including rights licensed hereunder from AMGEN) or this Agreement is invalid, narrowed in scope or unenforceable), and (z) the AMGEN Indemnified Parties reasonably cooperating with VIGIL (at VIGIL's expense). The AMGEN Indemnified Parties may, at their option and expense, be represented in any such action or proceeding by counsel of their own choosing.

**Section 7.2 LIMITATION OF DAMAGES.** IN NO EVENT SHALL EITHER PARTY BE LIABLE HEREUNDER TO THE OTHER PARTY FOR ANY PUNITIVE, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST REVENUE, LOST PROFITS, OR LOST SAVINGS) HOWEVER CAUSED AND UNDER ANY THEORY, EVEN IF IT HAS NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. THE LIMITATIONS SET FORTH IN THIS SECTION 7.2 (LIMITATION OF DAMAGES) SHALL NOT APPLY WITH RESPECT TO (A) ANY BREACH OF ARTICLE 8 (CONFIDENTIALITY) OR (B) THE INTENTIONAL MISCONDUCT OR GROSS NEGLIGENCE OF A PARTY. NOTHING IN THIS SECTION 7.2 (LIMITATION OF DAMAGES) IS INTENDED TO LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF A PARTY UNDER THIS ARTICLE 7 (INDEMNIFICATION) WITH RESPECT TO ANY DAMAGES PAID BY THE OTHER PARTY TO A THIRD PARTY IN CONNECTION WITH A THIRD- PARTY CLAIM.

**Section 7.3 Insurance.** At least [\*\*\*] days prior to the Initiation of the first clinical trial of a Product, VIGIL shall at its own expense procure and maintain during the Term (and for [\*\*\*] years thereafter) clinical trial liability insurance coverage adequate to cover its obligations hereunder and which is/are consistent with normal business practices of prudent pharmaceutical companies. Additionally, at least [\*\*\*] days prior to First Commercial Sale of any Product in the Territory, VIGIL shall at its own expense procure and maintain during the Term (and for [\*\*\*] years thereafter) product liability insurance coverage adequate to cover its obligations hereunder and which is consistent with normal business practices of prudent pharmaceutical companies. Each insurance policy required by and procured by VIGIL under this Section 7.3 (Insurance) shall name AMGEN as an additional insured. Such insurance shall not be construed to create a limit of VIGIL's liability with respect to its indemnification obligations under this Article 7

(Indemnification). VIGIL shall provide AMGEN with a certificate of insurance or other evidence of such insurance, upon request. VIGIL shall provide AMGEN with written notice at least [\*\*\*] days prior to the cancellation, non renewal or a material change in such insurance which materially adversely affects the rights of AMGEN hereunder, and [\*\*\*] days prior written notice of cancellation for non-payment of premiums. VIGIL's insurance hereunder shall be primary with respect to the obligations for which VIGIL is liable hereunder.

## ARTICLE 8. CONFIDENTIALITY

### Section 8.1 Confidential Information.

**8.1.1 Confidential Information.** Each Party (“**Disclosing Party**”) may disclose to the other Party (“**Receiving Party**”), and Receiving Party may acquire during the course and conduct of activities under this Agreement, certain proprietary or confidential information of Disclosing Party in connection with this Agreement. The term “**Confidential Information**” will mean (a) all Licensed Know-How, (b) all Licensed Materials, and (c) all ideas and information of any kind, whether in written, oral, graphical, machine-readable or other form, whether or not marked as confidential or proprietary, which are transferred, disclosed or made available by Disclosing Party or at the request of Receiving Party, including any of the foregoing of Third Parties. Without limiting the foregoing, Licensed Know-How and Licensed Materials will be considered Confidential Information of AMGEN, and all research and development updates as well as financial and business disclosures from VIGIL to AMGEN will be considered Confidential Information of VIGIL. During the Term, AMGEN shall keep confidential all Licensed Know-How and Licensed Materials to the extent disclosure of such Confidential Information would negatively impact in any material way the Exploitation of any Product in the Territory by VIGIL or its Affiliates or Sublicensees.

**8.1.2 Restrictions.** During the Term and for [\*\*\*] years thereafter, Receiving Party will keep all Disclosing Party's Confidential Information in confidence with the same degree of care with which Receiving Party holds its own confidential information (but in no event less than a commercially reasonable degree of care). Receiving Party will not use Disclosing Party's Confidential Information except in connection with the performance of its obligations and exercise of its rights under this Agreement. Receiving Party has the right to disclose Disclosing Party's Confidential Information without Disclosing Party's prior written consent, to the extent and only to the extent reasonably necessary, to Receiving Party's Affiliates and their employees, subcontractors, consultants or agents who have a need to know such Confidential Information in order to perform its obligations and exercise its rights under this Agreement and who are required to comply with the restrictions on use and disclosure in this Section 8.1.2 (Restrictions). Receiving Party will use diligent efforts to cause those entities and persons to comply with the restrictions on use and disclosure in this Section 8.1.2 (Restrictions). Receiving Party assumes responsibility for those entities and persons maintaining Disclosing Party's Confidential Information in confidence and using same only for the purposes described herein.

**8.1.3 Exceptions.** Receiving Party's obligation of nondisclosure and the limitations upon the right to use the Disclosing Party's Confidential Information will not apply to the extent that Receiving Party can demonstrate that the Disclosing Party's Confidential Information: (a) was known to Receiving Party or any of its Affiliates prior to the time of disclosure; (b) is or becomes public knowledge through no fault or omission of Receiving Party or any of its Affiliates; (c) is obtained by Receiving Party or any of its Affiliates from a Third Party under no obligation of confidentiality to Disclosing Party; or (d) has been independently developed by employees, subcontractors, consultants or agents of Receiving Party or any of its Affiliates without the use of Disclosing Party's Confidential Information, as evidenced by contemporaneous written records.

**8.1.4 Permitted Disclosures.** Receiving Party may disclose Disclosing Party's Confidential Information to the extent (and only to the extent) such disclosure is reasonably necessary in the following instances:

- (a) in order to comply with applicable law (including any securities law or regulation or the rules of a securities exchange) or with a legal or administrative proceeding;
- (b) in connection with prosecuting or defending litigation, Marketing Approvals and other regulatory filings and communications, and filing, prosecuting and enforcing Patents in connection with Receiving Party's rights and obligations pursuant to this Agreement; and
- (c) in connection with exercising its rights hereunder, to its Affiliates; potential and future collaborators (including Sublicensees where VIGIL is the Receiving Party); potential and permitted acquirers or assignees; and potential investment bankers, investors and lenders; provided, however, that (1) with respect to Sections 8.1.4(a) or 8.1.4(b), where reasonably possible, Receiving Party will notify Disclosing Party of Receiving Party's intent to make any disclosure pursuant thereto sufficiently prior to making such disclosure so as to allow Disclosing Party adequate time to take whatever action it may deem appropriate to protect the confidentiality of the information to be disclosed, and (2) with respect to Section 8.1.4(c), each of those named people and entities are required to comply with the restrictions on use and disclosure in Section 8.1.2 (Restrictions) (other than investment bankers, investors and lenders, which must be bound prior to disclosure by commercially reasonable obligations of confidentiality).

## **Section 8.2 Terms of this Agreement; Publicity.**

**8.2.1 Restrictions.** The Parties agree that the terms of this Agreement will be treated as Confidential Information of both Parties, and thus may be disclosed only as permitted by Section 8.1.4 (Permitted Disclosures). Except as required by Law, each Party agrees not to issue any press release or public statement disclosing information relating to this Agreement or the transactions contemplated hereby or the terms hereof without the prior written consent of the other Party not to be unreasonably withheld (or as such consent may need to be obtained in accordance with Section 8.2.2 (Review) or 8.3.1 (Right to Publish)).

**8.2.2 Review.** In the event either Party (the “**Issuing Party**”) desires to issue a press release or other public statement disclosing information relating to this Agreement or the transactions contemplated hereby or the terms hereof, the Issuing Party will provide the other Party (the “**Reviewing Party**”) with a copy of the proposed press release or public statement (the “**Release**”). The Issuing Party will specify with each such Release, taking into account the urgency of the matter being disclosed, a reasonable period of time within which the Receiving Party may provide any comments on such Release (but in no event less than [\*\*\*] business days). If the Receiving Party provides any comments, the Parties will consult on such Release and work in good faith to prepare a mutually acceptable Release. Either Party may subsequently publicly disclose any information previously contained in any Release, provided that the other Party provided its written consent hereto as stated in 8.2.1 (Restrictions). For the avoidance of doubt (and notwithstanding anything contained in this Agreement to the contrary), VIGIL, in its sole discretion, may make disclosures relating to the grant of any Sublicense, the development or commercialization of the Product, including the results of research and any clinical trial conducted by VIGIL, its Affiliates or Sublicensees or any health or safety matter related to the Product.

### **Section 8.3 Publications.**

**8.3.1 Right to Publish.** Subject to the provisions of Sections 8.1 (Confidential Information), 8.2 (Terms of this Agreement; Publicity) and 8.3.2 (Review), VIGIL shall have the right to publish with respect to the Products, and to make scientific presentations on the Products. Except with respect to the Ongoing Studies, AMGEN shall not publish with respect to the Products nor make any scientific presentations on the Products. Neither Party shall publish the sequence of the Licensed Lead Antibody Compound or information concerning the manufacture of the Licensed Lead Antibody Compound without the prior written consent of the other Party. The Parties acknowledge and agree that all VIGIL publications pursuant to this section shall be developed by VIGIL in accordance with VIGIL’s publications policies and practices. In addition, authorship by VIGIL of any publication arising from this Agreement submitted to a medical or other peer-reviewed scientific journal will be undertaken in accordance with the International Committee of Medical Journal Editors (ICMJE) guidelines for authorship. Consistent with those guidelines, authorship will be based upon substantial contribution to the design, analysis, interpretation of data, drafting and/or critically revising any publication(s) derived from the Agreement, and authors must engage in the drafting of the publication or revise it critically for important intellectual content. VIGIL agrees to maintain evidence of its compliance with the ICMJE guidelines for authorship, and that it will provide such evidence to AMGEN upon request. Publications shall acknowledge use of any AMGEN data, support, or other contributions as appropriate and consistent with medical journal guidelines.

#### **8.3.2 Review.**

(a) Except as required by Law or court order, for any proposed publication submitted by Vigil for presentation at a scientific meeting or to a medical or other peer-reviewed scientific journal regarding any Licensed Product in the Territory if such publication does or may include any Licensed Know-How, patentable subject matter or AMGEN Confidential Information, VIGIL: (1) shall transmit a copy of the proposed publication for review and comment to AMGEN at least [\*\*\*] days for abstracts and presentations prior to submission to a Third Party and at least [\*\*\*] [\*\*\*] days prior to the submission for manuscripts of such publication to a Third Party; (2) shall postpone such publication for up to an additional thirty (30) days upon request of AMGEN to allow the consideration of appropriate patent applications or other protection to be filed; (3) upon request of AMGEN shall remove all Confidential Information of AMGEN (excluding, for clarity, anything permitted to be disclosed by VIGIL pursuant to the last sentence of Section 8.2.2 (Review)); and (4) shall consider all reasonable comments made by AMGEN.



(b) For any proposed publication by AMGEN or [\*\*\*] in connection with the Ongoing Studies, AMGEN: (1) shall transmit a copy of the proposed publication for review and comment to VIGIL at least [\*\*\*] days for manuscripts prior to the submission of such publication to a Third Party; (2) shall postpone such publication for up to an additional [\*\*\*] days upon request of VIGIL to allow the consideration of appropriate patent applications or other protection to be filed; and (3) shall consider all reasonable comments made by VIGIL.

**Section 8.4 Relationship to the Confidentiality Agreement.** This Agreement supersedes that certain Confidential Disclosure Agreement between AMGEN and Atlas Venture Life Science Advisors LLC dated November 11, 2019; **provided, however**, that all “Confidential Information” disclosed or received by the Parties thereunder will be deemed “Confidential Information” hereunder and will be subject to the terms and conditions of this Agreement.

**Section 8.5 Attorney-Client Privilege.** Neither Party is waiving, nor will be deemed to have waived or diminished, any of its attorney work product protections, attorney-client privileges or similar protections and privileges recognized under the applicable Law of any jurisdiction as a result of disclosing information pursuant to this Agreement, or any of its Confidential Information (including Confidential Information related to pending or threatened litigation) to the receiving Party, regardless of whether the disclosing Party has asserted, or is or may be entitled to assert, such privileges and protections. The Parties may become joint defendants in proceedings to which the information covered by such protections and privileges relates and may determine that they share a common legal interest in disclosure between them that is subject to such privileges and protections, and in such event, may enter into a joint defense agreement setting forth, among other things, the foregoing principles but are not obligated to do so.

## ARTICLE 9. TERM & TERMINATION

**Section 9.1 Term.** The term of this Agreement (the “Term”) shall commence on the Effective Date, and unless terminated earlier as provided in this Article 9 (Term & Termination), shall continue in full force and effect until expiration of obligations to pay royalties under this Agreement for any Products in the Territory. Upon expiration of this Agreement, the licenses granted to VIGIL by AMGEN under this Agreement to Exploit the Product shall be fully paid-up, irrevocable and non-exclusive.

### Section 9.2 Termination by AMGEN.

**9.2.1 Breach.** AMGEN will have the right to terminate this Agreement upon delivery of written notice to VIGIL in the event of material breach of this Agreement by VIGIL **provided, however**,

(a) that such termination will not be effective if such breach has been cured within [\*\*\*] days after written notice thereof is given by AMGEN to VIGIL specifying in reasonable detail the nature of the alleged breach;

(b) that to the extent such material breach involves the material undisputed failure to make a payment when due, such breach must be cured within [\*\*\*] days after written notice thereof is given by AMGEN to VIGIL;

(c) that if the material breach is not reasonably capable of being cured within the [\*\*\*] day cure period, and if VIGIL (i) proposes within such [\*\*\*] day period a written plan, reasonably acceptable to AMGEN, to cure such breach, and (ii) makes good faith efforts to cure such default and to implement such written cure plan, then, until the first anniversary of receipt of notice of termination, AMGEN may not terminate this Agreement for so long as VIGIL is diligently pursuing such cure in accordance with such plan;

(d) that AMGEN will not have the right to terminate this Agreement under this Section 9.2.1 (Termination for Breach) for any act or omission by any Sublicensee if VIGIL terminates such Sublicense within [\*\*\*] days of AMGEN's notice to VIGIL under this Section 9.2.1 (Termination for Breach); and

(e) If VIGIL in good faith disputes such material breach and provides written notice of that dispute to AMGEN within [\*\*\*] days of receipt of AMGEN's notice to VIGIL under this Section 9.2.1 (Termination for Breach), this Agreement shall not terminate unless and until the matter has been finally resolved in accordance with Section 10.4 and it has been determined under Section 10.4 that VIGIL is in material breach of this Agreement. It is understood and acknowledged that during the pendency of such a dispute, all of the terms and conditions of this Agreement shall remain in effect and the Parties shall continue to perform all of their respective obligations hereunder.

**9.2.2 Termination for IP Challenge.** AMGEN will have the right to terminate this Agreement in full upon written notice to VIGIL in the event that VIGIL or any of its Affiliates or Sublicensees directly challenges in a legal or administrative proceeding the patentability, enforceability or validity of any Licensed Patents; **provided, however**, that AMGEN will not have the right to terminate this Agreement under this Section 9.2.2 (Termination for IP Challenge) for any such challenge by any Sublicensee if (a) VIGIL terminates such Sublicense within [\*\*\*] days of AMGEN's notice to VIGIL under this Section 9.2.2 (Termination for IP Challenge) or (b) such challenge is dismissed within [\*\*\*] days of AMGEN's notice to VIGIL under this Section 9.2.2 (Termination for IP Challenge) and not thereafter continued.

**9.2.3 Termination for a VIGIL Distracting Product.** AMGEN will have the right to terminate this Agreement in full upon written notice to VIGIL in the event that VIGIL violates Section 5.4.1 (Distracting Programs) and does not elect to treat such Distracting Product(s) as "Products" under this Agreement pursuant to Section 5.4.2 (VIGIL Election).

**9.2.4 Termination for Failure to Achieve Series A Financing.** AMGEN will have the right to terminate this Agreement in full upon written notice to VIGIL in the event that either (i) the Series A Preferred Financing does not occur within [\*\*\*] days of the Effective Date or (ii) Amgen does not receive the Amgen Shares in association with the Series A Preferred Financing.

### **Section 9.3 Termination by VIGIL.**

**9.3.1 Breach.** VIGIL will have the right to terminate this Agreement in full upon delivery of written notice to AMGEN in the event of any material breach by AMGEN of this Agreement; *provided, however,*

- (a) that such termination will not be effective if such breach has been cured within [\*\*\*] days after written notice thereof is given by VIGIL to AMGEN specifying the nature of the alleged breach;
- (b) that if the material breach is not reasonably capable of being cured within the [\*\*\*] day cure period, and if AMGEN (i) proposes within such [\*\*\*] day period a written plan, reasonably acceptable to VIGIL, to cure such breach, and (ii) makes good faith efforts to cure such default and to implement such written cure plan, then, until the first anniversary of receipt of notice of termination, VIGIL may not terminate this Agreement for so long as AMGEN is diligently pursuing such cure in accordance with such plan; and
- (c) If AMGEN in good faith disputes such material breach and provides written notice of that dispute to VIGIL within [\*\*\*] days of receipt of VIGIL's notice to AMGEN under this Section 9.3.1 (Breach), this Agreement shall not terminate unless and until the matter has been finally resolved in accordance with Section 10.4 and it has been determined under Section 10.4 that AMGEN is in material breach of this Agreement. It is understood and acknowledged that during the pendency of such a dispute, all of the terms and conditions of this Agreement shall remain in effect and the Parties shall continue to perform all of their respective obligations hereunder; and
- (d) if VIGIL can reasonably establish pursuant to the dispute resolution provisions of Section 10.4 that the material breach is limited to, and only has an impact on the MAB Program but not the Small Molecule Program or vice versa, then AMGEN shall only be entitled to terminate this Agreement with respect to the MAB Program or the Small Molecule Program, as the case may be, and the termination of the Agreement with respect to the program (i.e. either the MAB Program or the Small Molecule Program) which is terminated due to breach shall not impact VIGIL's rights with respect to the other Program or the Products developed under the other Program. In such event, the provisions of Section 9.3.2 shall apply with respect to the Terminated Program and the Terminated Products within such Terminated Program.

**9.3.2 Discretionary Termination.** VIGIL will have the right to terminate this Agreement in full or in part, with respect to VIGIL, its Affiliates or Sublicensee's Exploitation of MAB Products (the "**MAB Program**") or Exploitation of Small Molecule Products (the "**Small Molecule Program**");

- (a) In the time period prior to the initiation of clinical development for any MAB Product (with respect to the MAB Program) or Small Molecule Product (with respect to the Small Molecule Program), upon thirty (30) day's prior written notice to AMGEN

(b) In the time period after the initiation of clinical development for any MAB Product (with respect to the MAB Program) or Small Molecule Product (with respect to the Small Molecule Program), upon one hundred twenty (120) day's prior written notice to AMGEN

if, in each case, VIGIL concludes due to scientific, technical, regulatory or commercial reasons, including (i) safety or efficacy concerns, including adverse events of such Product, (ii) concerns relating to the present or future marketability or profitability of such Product, (iii) reasons related to patent coverage or (iv) existing and anticipated competition, renders the Exploitation of the MAB Product or Small Molecule Product no longer commercially practicable for VIGIL. Following any such notice of termination, VIGIL shall have no further obligation pursuant to Section 5.2 (Diligence) to further Exploit any MAB Product (with respect to the termination of the MAB Program) or any Small Molecule Product (with respect to the termination of the Small Molecule Program) (each such affected Licensed Product, a "**Terminated Product**" and the terminated MAB Program and/or Small Molecule Program, a "**Terminated Program**"), however, VIGIL shall use its reasonable efforts to facilitate a smooth, orderly and prompt transition of all Terminated Products Controlled by VIGIL prior to the effective date of termination of this Agreement from VIGIL to AMGEN.

**Section 9.4 Termination Upon Bankruptcy.** Either Party may terminate this Agreement if, at any time, the other Party shall (a) file in any court or agency pursuant to any statute or regulation of any state, country or jurisdiction, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of that Party or of its assets, (b) propose a written agreement of composition or extension of its debts, (c) be served with an involuntary petition against it, filed in any insolvency proceeding, and such petition has not been dismissed within [\*\*\*] days after the filing thereof, (d) propose or be a party to any dissolution or liquidation, (e) make an assignment for the benefit of its creditors or (f) admit in writing its inability generally to meet its obligations as they fall due in the general course.

**Section 9.5 Effects of Termination.** Upon termination by either Party under Section 9.2 (Termination by AMGEN), Section 9.3 (Termination by VIGIL) or Section 9.4 (Termination Upon Bankruptcy):

(a) VIGIL will responsibly wind-down, in accordance with accepted pharmaceutical industry norms and ethical practices and all legal and regulatory requirements, any on-going clinical studies involving a Terminated Product for which it has responsibility hereunder in which patient dosing has commenced or, if reasonably practicable and not adverse to patient safety and requested by AMGEN, VIGIL shall complete such trials and AMGEN shall reimburse VIGIL its reasonable, out-of-pocket costs and internal labor costs at the FTE Rate associated therewith. For the purpose of clarity, except as provided for above, VIGIL may wind-down any ongoing clinical trials prior to the date of termination in accordance with accepted pharmaceutical industry norms and ethical practices and VIGIL will be responsible for any costs associated with such wind-down.

(b) A termination of this Agreement will automatically terminate any sublicense of Licensed Know-How and Licensed Patents relating to the Terminated Program(s) (including all Products in such Terminated Program(s)) granted by VIGIL pursuant to Section 2.2 (Sublicenses) unless AMGEN has approved such sublicense in writing, in which case all rights under such sublicense shall be deemed to survive termination as long as Sublicensee complies with its obligations thereunder, and provided that in no event will AMGEN be obligated to fulfill any of VIGIL's obligations under such sublicense.

(c) All rights and licenses granted by AMGEN to VIGIL in Article 2 (License Grant) and all restrictions on AMGEN under Section 2.3 (Retained Rights and Limitations) will terminate, and VIGIL and its Affiliates, and (subject to Section 9.5(b)) Sublicensees will cease all use of Licensed Know-How relating to the Terminated Program(s) and Licensed Patents relating to the Terminated Program(s) and all Exploitation of any Terminated Product, except to the extent required hereunder. For clarity, after termination, while VIGIL will retain rights in any Newly Added Product(s) (the "Retained Products"), the licenses granted by AMGEN to VIGIL in Article 2 (License Grant) will terminate with respect to such Retained Products relating to the Terminated Program(s) and VIGIL and its Affiliates, and (subject to Section 9.5(b)) Sublicensees will cease all use of Licensed Know-How relating to such Retained Products.

(d) Upon AMGEN's request, all Marketing Approvals and other regulatory filings and communications owned (in whole or in part) or otherwise controlled by VIGIL and its Affiliates, and (subject to Section 9.5(b)) Sublicensees, and all other documents relating to or necessary to further Exploit any Terminated Product, as such items exist as of the effective date of such termination (including all documents related to completed and ongoing clinical studies) will be assigned to AMGEN to the extent practicable (or, if not so assigned, VIGIL shall make the benefit of the foregoing reasonably available to AMGEN), and VIGIL will provide to AMGEN one (1) copy of the foregoing and all documents contained in or referenced in any such items, together with the raw and summarized data for any clinical studies (and where reasonably available, electronic copies thereof). All expenses in relation to such assignment will be borne by AMGEN. In the event of any failure to obtain assignment, VIGIL hereby consents and grants to AMGEN the right to access and reference (without any further action required on the part of VIGIL, whose authorization to file this consent with any Regulatory Authority is hereby granted) any such item.

(e) Upon AMGEN's election, VIGIL shall and hereby does grant to AMGEN and its Affiliates effective upon such AMGEN election at the time of termination (i) an automatic, worldwide, perpetual and irrevocable exclusive license, with the right to grant sublicenses through multiple tiers, solely for use in Exploiting such Terminated Product, under Know-How and Patent Rights that are Controlled by VIGIL or any of its Affiliates and Sublicensees prior to termination and that Cover such Terminated Product and which are necessary for Exploiting such Terminated Product and any improvement of any of the foregoing, and (ii) an automatic,

worldwide, perpetual and irrevocable non-exclusive license, with the right to grant sublicenses through multiple tiers, solely for use in Exploiting such Terminated Product, under Know-How and Patent Rights that are Controlled by VIGIL or any of its Affiliates and (subject to Section 9.5(b)) Sublicensees that are not solely related to such Terminated Product but that are necessary for Exploiting such Terminated Product and any improvement to any of the foregoing. For the purpose of clarity, upon AMGEN's election at the time of termination, (1) such license shall be effective only as of and after the effective date of such termination and (2) Amgen will be obligated to pay royalties during the Royalty Term(s) as provided for in Section 3.3 (Royalties); provided, all deductions and reductions contemplated in Section 3.3 will apply to such payments and the definition of Net Sales and Sections 3.4 (Method of Payment) -3.9 (Taxes) (inclusive) will apply mutatis- mutandis to Amgen in connection with the payment of such royalties and provided further that the royalty rates shall be [\*\*\*] the rates set forth in Section 3.3 with respect to any Terminated Product. Notwithstanding the foregoing, in the event that any of the foregoing Know-How or Patent Rights are not Controlled by VIGIL (or any of its Affiliates and Sublicensees) due to the fact that such party would be obligated to make any payments to a Third Party in connection with the grant of the foregoing licenses, then AMGEN shall have the right to assume such payment obligations and should it elect to do so, such Know-How and Patent Rights shall be included in such license grant.

(f) Upon AMGEN's request, VIGIL will assign (or, if applicable, will cause its Affiliates or (subject to Section 9.5(b)) Sublicensees to assign) to AMGEN all of VIGIL's (and such Affiliates' and Sublicensees') right, title and interest in and to any (1) registered or unregistered trademarks or internet domain names that are specific to the Terminated Product(s), provided that such assignment is in accordance with VIGIL's policy on trademarks (it being understood that the foregoing will not include any trademarks or internet domain names that contain the corporate or business name(s) of VIGIL) and (2) Program Patents that claim any Licensed Know-How.

(g) VIGIL agrees (and shall cause its Affiliates and Sublicensees as a condition of the grant of the applicable Sublicense to so agree) to fully cooperate with AMGEN and its designee(s) to facilitate a smooth, orderly and prompt transition of the Exploitation of the Terminated Products in the Territory to AMGEN and/or its designee(s). Upon request by AMGEN, VIGIL shall transfer to AMGEN some or all quantities of the Terminated Product(s) in its possession. If VIGIL is, at the time of such termination of this Agreement, party to any Third Party contracts with respect to such Terminated Product(s), then it shall provide AMGEN notice of and (to the extent permitted to do so), copies thereof. VIGIL shall assign to AMGEN any such contracts requested by AMGEN, to the extent relating to such Terminated Product(s) and to the extent it has the right under such contract(s) to do so (and shall use commercially reasonable efforts to obtain any required consents, which efforts shall not require making any payments or incurring any liabilities unless AMGEN agrees to reimburse VIGIL therefor (and VIGIL shall inform AMGEN of any such required payment or liability)). In addition, VIGIL shall, at AMGEN's

cost and expense, (i) provide any cooperation reasonably requested by AMGEN to ensure uninterrupted supply of such Terminated Product(s) (including VIGIL's employees' time at the FTE Rate), and (ii) if VIGIL manufactured such Terminated Product(s) at the time of termination, continue to provide for manufacturing of such Terminated Product for AMGEN, at [\*\*\*] of the fully-burdened manufacturing cost therefor, from the date of notice of such termination until the sooner to occur of such time as AMGEN is able, using commercially reasonable efforts to do so, to secure an acceptable alternative commercial manufacturing source from which sufficient quantities of such Terminated Product(s) may be procured and legally sold in the Territory or [\*\*\*] months from the effective date of termination of this Agreement.

(h) VIGIL shall duly execute and deliver, or cause to be duly executed and delivered, such instruments and shall do and cause to be done such activities and things, including the filings of such assignments, agreements, documents and instruments, as may be necessary under, or as AMGEN may reasonably request in connection with, AMGEN's rights under this Section 9.5 (Effects of Termination).

(i) Notwithstanding a partial termination of this Agreement pursuant to Section 9.2.1 or 9.3.2 or a complete termination of this Agreement pursuant to Section 9.2, Section 9.3.1 or Section 9.4, VIGIL's obligations to pay royalties and milestone payments under Section 3.3.2 and Section 3.3 shall continue with respect to any Retained Product, in each case on a Retained-Product-by-Retained-Product and country-by-country basis until the expiration of the Royalty Term with respect to such Retained Product.

(j) VIGIL shall remain financially responsible for (and shall pay to AMGEN) (1) the Reservation Fee and Reservation Agreement Process Consumables Fees and (2) all amounts due under the Order and the Reservation Agreement, as contemplated in Section 2.5.3(a).

(k) VIGIL shall return to AMGEN (or cause to be returned to Amgen) all Licensed Materials

(l) In the event of a termination under Section 9.3.2 (Discretionary Termination) or Section 9.3.1, in either case with respect to a Terminated Program only (and not with respect to this Agreement in its entirety), VIGIL's obligations under Section 5.2 with respect to Products in the Terminated Program shall cease and Amgen's restrictions under Section 5.5 (Amgen Restrictions) shall cease with respect to (1) small molecules (if the Terminated Program is the Small Molecule Program) or (2) antibodies (if the Terminated Program is the MAB Program).

**Section 9.6 Survival.** In addition to the termination consequences set forth in Section 9.5 (Effects of Termination), the following provisions will survive termination or expiration of this Agreement: Articles 1 (Definitions), 7 (Indemnification), 8 (Confidentiality), and 10 (Miscellaneous) and Sections 2.5.3 (AMGEN Cell Line and Licensed Manufacturing Know-How) (with respect to VIGIL's payment obligations in respect of the Order or as otherwise accrued

before such expiration or termination), 2.7 (No Other Rights), 3.1 (Equity in Vigil), 3.2 (Upfront and Milestone Payments) (with respect to payment obligations accrued before such expiration or termination and with respect to Retained Products), 3.3 (Royalties) (with respect to sales of Licensed Product made before such expiration or termination and with respect to all future sales of Retained Products), 3.4 (Method of Payment) through 3.9 (Taxes) (inclusive) (with respect to all payments due prior to the termination of the agreement and for all future payments due post-terminations), 4.3 (Enforcement) through 4.5 (Recovery) (inclusive) (with respect to any action initiated prior to such expiration or termination), 6.3 (Disclaimer), and this Section 9.6 (Survival). Termination or expiration of this Agreement are neither Party's exclusive remedy and will not relieve the Parties of any liability or obligation which accrued hereunder prior to the effective date of such termination or expiration nor preclude either Party from pursuing all rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement nor prejudice either Party's right to obtain performance of any obligation. All other rights and obligations will terminate upon expiration of this Agreement.

## ARTICLE 10. MISCELLANEOUS

**Section 10.1 Entire Agreement; Amendment.** This Agreement and all Exhibits attached to this Agreement constitute the entire agreement between the Parties as to the subject matter hereof. All prior and contemporaneous negotiations, representations, warranties, agreements, statements, promises and understandings with respect to the subject matter of this Agreement are hereby superseded and merged into, extinguished by and completely expressed by this Agreement. None of the Parties shall be bound by or charged with any written or oral agreements, representations, warranties, statements, promises or understandings not specifically set forth in this Agreement. No amendment, supplement or other modification to any provision of this Agreement shall be binding unless in writing and signed by all Parties.

**Section 10.2 Section 365(n) of the Bankruptcy Code.** All rights and licenses granted under or pursuant to any section of this Agreement are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of rights to "intellectual property" as defined under Section 101(35A) of the U.S. Bankruptcy Code to the extent permitted thereunder. The Parties shall retain and may fully exercise all of their respective rights and elections under the U.S. Bankruptcy Code. Upon the bankruptcy of any Party, the non-bankrupt Party shall further be entitled to a complete duplicate of (or complete access to, as appropriate) any such intellectual property, and such, if not already in its possession, shall be promptly delivered to the non-bankrupt Party, unless the bankrupt Party elects to continue, and continues, to perform all of its obligations under this Agreement.

**Section 10.3 Independent Contractors.** The relationship between VIGIL and AMGEN created by this Agreement is solely that of independent contractors. This Agreement does not create any agency, distributorship, employee-employer, partnership, joint venture or similar business relationship between the Parties. Neither Party is a legal representative of the other Party, and neither Party can assume or create any obligation, representation, warranty or guarantee, express or implied, on behalf of the other Party for any purpose whatsoever. Each Party shall use its own discretion and shall have complete and authoritative control over its employees and the details of performing its obligations under this Agreement.



**Section 10.4 Dispute Resolution; Governing Law; Jurisdiction.** The Parties recognize that a dispute may arise relating to this Agreement (a "Dispute"). Any Dispute, including Disputes that may involve the Affiliates of any Party, shall be resolved in accordance with this Section 10.4. If there are any Disputes in connection with this Agreement, including Disputes related to proposed termination of this Agreement under Article 9, all rights and obligations of the Parties shall continue until such time as the Dispute has been resolved in accordance with the provisions of this Section 10.4. Any Dispute, including any claim, or controversy as to the breach, enforcement, interpretation or validity of this Agreement shall be referred to a member of each Party's executive management team (the "Executive Officers") for attempted resolution. If the Executive Officers are unable to resolve such Dispute within [\*\*\*] days of such Dispute being referred to them, the Parties hereby agree that either Party may initiate litigation in a court of competent jurisdiction located in New York, New York to address such Dispute. This Agreement and its effect are subject to and shall be construed and enforced in accordance with the law of the State of New York, without regard to its conflicts of laws, except as to any issue which depends upon the validity, scope or enforceability of any Licensed Patent, which issue shall be determined in accordance with the laws of the country in which such patent was issued. Each of the Parties hereby irrevocably and unconditionally consents to submit to the exclusive jurisdiction of the courts of the State of New York for any matter arising out of or relating to this Agreement and the transactions contemplated hereby, and agrees not to commence any litigation relating thereto except in such courts. Each of the Parties hereby irrevocably and unconditionally waives any objection to the laying of venue of any matter arising out of this Agreement or the transactions contemplated hereby in the courts of the State of New York and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such matter brought in any such court has been brought in an inconvenient forum. The Parties agree that a final judgment in any such matter shall be conclusive and may be enforced in other jurisdictions by suits on the judgment or in any other manner provided by law. Any proceeding brought by either Party under this Agreement shall be exclusively conducted in the English language.

**Section 10.5 Notice.** All notices or communication required or permitted to be given by either Party hereunder shall be deemed sufficiently given if mailed by registered mail or certified mail, return receipt requested, or sent by overnight courier, such as Federal Express, to the other Party at its respective address set forth below or to such other address as one Party shall give notice of to the other from time to time hereunder. Mailed notices shall be deemed to be received on the third (3rd) business day following the date of mailing. Notices sent by overnight courier shall be deemed received the following business day.

If to VIGIL:

VIGIL NEUROSCIENCE, INC.  
400 Technology Square, 10th Floor  
Cambridge, MA 02139  
Attn: CEO

With a copy to:  
Cooley LLP  
500 Boylston Street, 14th Floor  
Boston, MA 02116-3736  
Attn: Marc Recht

If to AMGEN:

Amgen Inc.  
One Amgen Center Drive  
Thousand Oaks, CA 91320  
Attn: [\*\*\*]

**Section 10.6 Compliance With Law; Severability.** Nothing in this Agreement shall be construed to require the commission of any act contrary to Law. If any one or more provisions of this Agreement is held to be invalid, illegal or unenforceable, the affected provisions of this Agreement shall be curtailed and limited only to the extent necessary to bring it within the applicable legal requirements and the validity, legality and enforceability of the remaining provisions of this Agreement shall not in any way be affected or impaired thereby.

**Section 10.7 Non-Use of Names.** AMGEN shall not use the name, trademark, logo, or physical likeness of VIGIL or any of its officers, directors or employees, or any adaptation of any of them, in any advertising, promotional or sales literature, without such VIGIL's prior written consent. AMGEN shall require its Affiliates to comply with the foregoing. VIGIL shall not use the name, trademark, logo, or physical likeness of AMGEN or any of its officers, directors or employees, or any adaptation of any of them, in any advertising, promotional or sales literature, without AMGEN's prior written consent. VIGIL shall require its Affiliates and Sublicensees to comply with the foregoing in connection with each such Sublicensee's sublicense. Notwithstanding the foregoing, VIGIL and its Affiliates and Sublicensees may identify the existence of their rights as licensees of the Licensed Patents as necessary or appropriate to exercise rights under this Agreement.

**Section 10.8 Successors and Assigns.** Neither this Agreement nor any of the rights or obligations created herein may be assigned by either Party, in whole or in part, without the prior written consent of the other Party, not to be unreasonably withheld or delayed except that either Party shall be free to assign this Agreement (a) to an Affiliate of such Party (for so long as such Affiliate remains an Affiliate) provided that such Party shall remain liable and responsible to the other Party for the performance and observance of all such duties and obligations by such Affiliate, or (b) in connection with any merger, consolidation or sale of such Party or sale of all or substantially all of the assets of the Party that relate to this Agreement (a "Sale Transaction"), without the prior consent of the non-assigning Party. This Agreement shall bind and inure to the benefit of the successors and permitted assigns of the Parties hereto. Any assignment of this Agreement in contravention of this Section 10.8 (Successors and Assigns) shall be null and void.

**Section 10.9 Sale Transaction or AMGEN Acquisition.** In the event of (x) a Sale Transaction, or (y) the acquisition by AMGEN or VIGIL of all or substantially all of the business of a Third Party (together with any entities that were Affiliates of such Third Party immediately prior to such acquisition, an "Acquiree"), whether by merger, sale of stock, sale of assets or otherwise (an "Acquisition"), intellectual property rights of the acquiring party in a Sale Transaction, if other than one of the Parties to this Agreement (together with any entities that were affiliates of such Third Party immediately prior to such Sale Transaction, a "Third Party Acquirer"), or the Acquiree, as applicable, shall not be: (a) included (as the licensor or licensee) in the technology licensed hereunder, (b) the subject (either granting or receiving) of any covenant not to sue hereunder except as provided for in Section 2.6 or (c) otherwise subject to this Agreement, except as specified in Section 5.4 with respect to Distracting Products.

**Section 10.10 Waivers.** A Party's consent to or waiver, express or implied, of any other Party's breach of its obligations hereunder shall not be deemed to be or construed as a consent to or waiver of any other breach of the same or any other obligations of such breaching Party. A Party's failure to complain of any act, or failure to act, by the other Party, to declare the other Party in default, to insist upon the strict performance of any obligation or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof, no matter how long such failure continues, shall not constitute a waiver by such Party of its rights hereunder, of any such breach, or of any other obligation or condition. A Party's consent in any one instance shall not limit or waive the necessity to obtain such Party's consent in any future instance and in any event no consent or waiver shall be effective for any purpose hereunder unless such consent or waiver is in writing and signed by the Party granting such consent or waiver.

**Section 10.11 No Third Party Beneficiaries.** Except as expressly provided with respect to AMGEN Indemnified Parties and VIGIL Indemnified Parties in Article 7 (Indemnification), nothing in this Agreement shall be construed as giving any Person, other than the Parties hereto and their successors and permitted assigns, any right, remedy or claim under or in respect of this Agreement or any provision hereof.

**Section 10.12 Headings; Exhibits.** Article and Section headings used herein are for convenient reference only, and are not a part of this Agreement. All Exhibits are incorporated herein by this reference.

**Section 10.13 Interpretation.** Except where the context otherwise requires, wherever used, the singular shall include the plural, the plural the singular, the use of any gender shall be applicable to all genders and the word "or" is used in the inclusive sense (and/or). The term "including" as used herein shall mean including, without limiting the generality of any description preceding such term. The term "will" as used herein means shall. All references to a "business day" or "business days" in this Agreement means any day other than a day which is a Saturday, a Sunday or any day banks are authorized or required to be closed in the United States. The language in all parts of this Agreement shall be deemed to be the language mutually chosen by the Parties. The Parties and their counsel have cooperated in the drafting and preparation of this Agreement, and this Agreement therefore shall not be construed against any Party by virtue of its role as the drafter thereof.

**Section 10.14 Equitable Relief.** Each Party acknowledges that a breach by it of the provisions of this Agreement may not reasonably or adequately be compensated in damages in an action at law and that such a breach may cause the other Party irreparable injury and damage. By reason thereof, each Party agrees that the other Party is entitled to seek, in addition to any other remedies it may have under this Agreement or otherwise, preliminary and permanent injunctive and other equitable relief to prevent or curtail any breach of this Agreement by the other Party and is otherwise entitled to specific performance of the terms hereof; provided, however, that no specification in this Agreement of a specific legal or equitable remedy will be construed as a waiver or prohibition against the pursuing of other legal or equitable remedies in the event of such a breach.

**Section 10.15 Force Majeure.** Neither Party shall be held liable or responsible to the other Party, nor be deemed to have defaulted under or breached this Agreement, for failure or delay in fulfilling or performing any term of this Agreement to the extent, and for so long as, such failure or delay is caused by or results from causes beyond the reasonable control of the affected Party, including fire, floods, embargoes, power shortage or failure, acts of war (whether war be declared or not), insurrections, riots, terrorism, civil commotions, strikes, a pandemic (including COVID19 related interruptions), lockouts or other labor disturbances, acts of God, or any acts, omissions, or delays in acting by any governmental authority or the other Party; provided, however, that the affected Party promptly notifies the other Party in writing (and continues to provide monthly status updates to the other Party for the duration of the effect); and provided further, however, that the affected Party shall use its commercially reasonable efforts to avoid or remove such causes of nonperformance and to mitigate the effect of such occurrence, and shall continue performance with reasonable dispatch whenever such causes are removed. The Parties acknowledge and agree that as of the Execution Date, the activities of both Parties may be interrupted due to the COVID-19 pandemic and, as a result, each Party's performance of some or all of the activities relating to the transfer of Licensed Material and Licensed Know-How may be delayed. Further, as COVID-19 pandemic circumstances evolve, there may be additional delays or other circumstances for either Party that were not initially foreseeable. In light of the foregoing, the Parties agree to discuss in good faith an extension to timelines contemplated in this Agreement, as may be applicable.

**Section 10.16 Further Assurances.** Each Party shall execute, acknowledge, and deliver such further instructions, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

**Section 10.17 Counterparts.** This Agreement may be executed in counterparts by a single Party, each of which when taken together shall constitute one and the same agreement, and may be executed through the use of facsimiles or .pdf or other electronically transmitted documents.

[signature page follows]

**IN WITNESS WHEREOF**, the Parties have executed this Agreement as of the date first set forth above.

VIGIL NEUROSCIENCE, INC

By: /s/ Ommer Chohan  
Name: Ommer Chohan  
Title: Chief Financial Officer

AMGEN INC.

By: /s/ Peter H. Griffith  
Name: Peter H. Griffith  
Title: EVP & CFO

By: /s/ David M. Reese  
Name: David M. Reese  
Title: EVP, Research & Development

EXHIBIT A

LICENSED KNOW-HOW

Access to documents listed below in the fields of regulatory, research, pharmacology, toxicology, bioanalytical, pharmacokinetics, and their supporting information, including but not limited to, the final reports, study files, study samples/specimens, and individual data files, will be made available to VIGIL within the timeframes shown below after the Effective Date.

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**EXHIBIT C**

**PERMITTED CMOS/CROs**

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**EXHIBIT D**

**LICENSED COMPOUNDS**

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**EXHIBIT E**

**SUPPLEMENTAL CONFIDENTIALITY AGREEMENT**

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**EXHIBIT F**

**RESERVATION AGREEMENT**

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EXHIBIT G

ONGOING STUDIES

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***	***	***	***	***	***	***
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**Exhibit H**

**[\*\*\*] Order Summary**

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CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH “[\*\*\*]”. SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

**(1) FUJIFILM DIOSYNTH BIOTECHNOLOGIES UK LIMITED**

**(2) FUJIFILM DIOSYNTH BIOTECHNOLOGIES TEXAS, LLC**

**(3) FUJIFILM DIOSYNTH BIOTECHNOLOGIES U.S.A., INC**

**(4) FUJIFILM DIOSYNTH BIOTECHNOLOGIES DENMARK APS**

**AND**

**(5) VIGIL NEUROSCIENCE, INC.**

**MASTER SERVICES AGREEMENT**

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**THIS AGREEMENT** is made on the date it is signed by the last signing party.

**BETWEEN**

- (1) **FUJIFILM DIOSYNTH BIOTECHNOLOGIES UK LIMITED** incorporated and registered in England and Wales with company number 05803359 whose registered office is at Belasis Avenue, Billingham, TS23 1LH, England (“**FDBK**”);
- (2) **FUJIFILM DIOSYNTH BIOTECHNOLOGIES TEXAS, LLC** incorporated and registered in Texas whose principal place of business is at 100 Discovery Drive, Suite 200 College Station, Texas 77845 United States of America (“**FDBT**”);
- (3) **FUJIFILM DIOSYNTH BIOTECHNOLOGIES U.S.A., INC** incorporated and registered in Delaware whose principal place of business is at 101 J Morris Commons Lane, Morrisville, North Carolina 27560, United States of America (“**FDBU**”);
- (4) **FUJIFILM DIOSYNTH BIOTECHNOLOGIES DENMARK APS** incorporated and registered in Denmark with company number 26060702 whose registered office is at Biotek Alle 1, 3400 Hillerød, Denmark (“**FDBD**”); and
- (5) **VIGIL NEUROSCIENCE, INC.** incorporated and registered in the State of Delaware having an address at 400 Technology Square, 10th Floor, Cambridge, MA 02139 (the “**Customer**”).

**BACKGROUND**

- (A) Fujifilm (as defined below) is a biopharmaceutical contract development and manufacturing organization. The Customer wishes to appoint Fujifilm to carry out development and manufacturing services in relation to certain of the Customer’s products.
- (B) Fujifilm and the Customer have agreed to work together on the terms and conditions contained in this Agreement.

**AGREED TERMS**

**1. DEFINITIONS AND INTERPRETATION**

1.1 In this Agreement the following words have the following meanings unless inconsistent with the context:

**“Affiliate”** means in relation to an entity, each or any other entity who for the time being, that directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with such entity. For purposes hereof (and clause 14.2), “control” shall mean: (a) holding the majority of the voting rights or share capital of such entity; (b) any power (whether direct or indirect and whether by the ownership of share capital, the possession of voting power, contract, or otherwise) to appoint

and/or remove all or such of the members of the board or other governing body of a body corporate as are able to cast the majority of the votes capable of being cast by members of that board or body on all, or substantially all, matters, or (c) otherwise to control or have the power to control the policies, management and affairs of that body corporate;

**“Ancillary Services”**

has the meaning given to it in Schedule 1 (Charges);

**“Applicable Laws”**

applicable law, regulations and binding guidance which applies in the jurisdiction in which the Program is being performed;

**“Background IP”**

all Intellectual Property Rights controlled, owned or jointly owned by any party (or a third party on its behalf) prior to the Effective Date or developed independently from the Program. Fujifilm’s proprietary manufacturing, expression or purification technologies, including:

- (a) an expression system within the scope of international patent application [\*\*\*] (the “pAVEway™ Expression System”);
- (b) expression technology within the scope of international patent application [\*\*\*] (the “Apollo™ Expression Technology”); and
- (c) Fujifilm’s proprietary alcohol oxidase yeast *Pichia pastoris* expression system (the “Yeast Expression System”),

(“**Fujifilm Expression Technology**”) is Fujifilm’s Background IP;

**“Batch”**

a specific quantity of material produced in a process or series of processes. In the case of continuous production, a batch may correspond to a defined fraction of the production. The batch size can be defined either by a fixed quantity or by the amount produced in a fixed time interval.;

**“Batch Cancellation Fee”**

the Batch Cancellation Fee described in Schedule 1;

**“Batch Fee”**

if the Batch Fee is clearly described in the applicable SoW the Batch Fee for that SoW shall be the Batch Fee described in the SoW, however, if the Batch Fee is not clearly described in the applicable SoW it will be deemed to be, in respect of any Batch under that SoW, all agreed upon Charges for Fujifilm Services in respect of the Manufacturing Stages carried out in connection with that Batch;



<b>“Business Day”</b>	<p>(a) in relation to notices given under this Agreement rather than a specific Scope of Work a day other than a Saturday, Sunday or public holiday in England, the US, Denmark and/or the country in which the Customer’s head office is located; and</p> <p>(b) in relation to notices given under a specific Scope of Work a day other than a Saturday, Sunday or public holiday in England if FDBK is a contracting party, the US if FDBT or FDBU is a contracting party, Denmark if FDBD is a contracting party and/or the country in which the Customer’s head office is located;</p>
<b>“cGMP”</b>	Current Good Manufacturing Practice as defined in (i) the Federal Register volume 66 No 186 and those sections applicable within the FDA Regulations 21 CFR Part 11, 210, 211, 600, 601 and 610 and (ii) the rules governing medicinal products in the European Union Eudralex Volume 4 – Guidelines for good manufacturing practices for medicinal products for human and veterinary use. Part I – Basic Requirements for Medicinal Products. Part II – Basic Requirements for Active Substances used as Starting Materials and ICHQ7;
<b>“cGMP Batch”</b>	a Batch identified in a Scope of Work which is intended to be manufactured during a Manufacturing Stage and subject to Disposition in each case in accordance with cGMP;
<b>“Change”</b>	has the meaning given to it in clause 13;
<b>“Charges”</b>	has the meaning set out in clause 8.2;
<b>“Commercially Reasonable Efforts”</b>	with respect to the activities pursuant to a Program, the reasonable efforts and resources used by a reputable biopharmaceutical contract manufacturing organization for Drug Substances of similar nature, complexity and developmental stage in the same or similar circumstances;
<b>“Competitor”</b>	a contract development and/or manufacturing organization in the biopharmaceutical industry;
<b>“Confidential Information”</b>	the fact and terms of this Agreement and any Scope of Work, and all information (in whatever form) in respect of the business of each of the parties and each of its Affiliates including any ideas; business methods; finance; prices, business, financial, marketing or development plans; products or services, know-how or other matters connected with products or services manufactured and/or marketed; customer lists or details; computer systems and software; which is (in each case) provided or obtained by one party to or for the other;

<b>“Conforming Batch”</b>	a cGMP Batch which has been produced in accordance with cGMP, and which meets the Product Specification;
<b>“Consumable”</b>	a consumable item used or intended for use in a Program, including PEG, reagents (including analytical reagents), raw materials, packaging components, chromatography resins, filters, filtration membranes, media, buffer bags, refold bags, tubing, hoses, disposable analytical test kits, in-process measurement probes, columns (including analytical columns) and disposable containers;
<b>“Customer Foreground IP”</b>	all Foreground IP that constitutes an improvement or modification which is specific to the Customer’s Background IP, the Product or manufacture thereof;
<b>“Delay”</b>	has the meaning given to it in clause 14.1.1;
<b>“Demonstration Batch”</b>	a Batch which is manufactured in a non cGMP R&D facility for demonstration purposes and which is not intended for human use and is identified as such in the applicable SoW;
<b>“Deviation”</b>	a cGMP deviation as detailed in the Quality Agreement;
<b>“Disposition”</b>	the Stage during which (i) the Product is tested for compliance versus the Product Specification; (ii) all production instruction and analytical records relating to cGMP manufacture of each cGMP Batch prepared by Fujifilm are reviewed; and (iii) a Fujifilm recommendation for Product release or reject is made; in each case as applicable;
<b>“Drug Product”</b>	the final dosage form of product which contains Product in association with other active or inactive ingredients;
<b>“Drug Substance”</b>	Any substance or mixture of substances intended to be used in the manufacture of a Drug Product and that, when used in the production of a drug, becomes an active ingredient of the Drug Product. Such substances are intended to furnish pharmacological activity or other direct effect on the diagnosis, cure, mitigation, treatment, or prevention of disease or to affect the structure and function of the body.
<b>“Effective Date”</b>	February 11, 2021;

<b>“Engineering Batch”</b>	a Batch that is manufactured in a cGMP Facility at scale using the Process but which is not intended for human use and is identified as such in the applicable SoW;
<b>“Facility”</b>	any of Fujifilm’s manufacturing facilities in which a Program will be performed;
<b>“Force Majeure Event”</b>	any event or circumstances outside the reasonable control of a party affecting its ability to perform any of its obligations under this Agreement including act of God, fire, flood, severe weather, epidemic or pandemic, war, revolution, acts of terrorism, riot or civil commotion, acts of government, trade embargo, labor disputes (excluding labor disputes involving the party in question), interruption of utility service, restraints or delays affecting shipping or carriers, inability or delay in obtaining supplies of adequate or suitable materials, inability or delay in obtaining third party services, breakdown or failure in equipment or machinery, cyber-attack, currency restrictions but shall not include the failure of Drug Product in clinical trials or failure of Drug Product to gain regulatory approval;
<b>“Foreground IP”</b>	all Intellectual Property Rights that arise or are obtained or developed by or on behalf of any party in the course of the performance of a Program;
<b>“Fujifilm”</b>	FDBK, FDBT, FDBU and/or FDBD as the context requires in accordance with clause 1.3;
<b>“Fujifilm Foreground IP”</b>	all Foreground IP other than Customer Foreground IP;
<b>“Fujifilm Services”</b>	the research and development services to be provided by Fujifilm for the Customer during a Program as the same are described in the relevant Scope of Work excluding the Ancillary Services;
<b>“Gross Negligence”</b>	a conscious and voluntary disregard of the need to use reasonable care, which is likely to cause foreseeable grave injury or harm to persons, property, or both;
<b>“Historic Documents”</b>	any historic contractual documentation which cover the same subject matter as a Program as incorporated by reference into the relevant SoW;

<b>“Indemnify”</b>	on demand to indemnify and keep indemnified, and hold harmless, the party to be indemnified on an after tax basis;
<b>“Intellectual Property Right”</b>	any current and future intellectual property rights and interests including patents, utility models, designs, design rights, copyright (including rights in software), decryption rights, database rights, trade marks, rights pursuant to passing off, service marks, business and trade names, domain names, know-how, results, data, databases, formulations, compounds, rights in biological or chemical materials, rights under data exclusivity laws, rights under unfair competition laws, topography rights, inventions, rights in confidential information (including technical and commercial trade secrets); supplementary protection certificates and image rights, and rights of a similar or corresponding character in any part of the world, in each case whether registered or not and including any application for registration and renewals or extensions of such rights in any country in the world and whether subsisting now or in the future;
<b>“Liabilities”</b>	any (i) liabilities of any nature, whether accrued, absolute, contingent or otherwise and whether in contract, tort (including negligence) or otherwise; (ii) losses, costs (including internal costs/overheads), damages, fines or expenses including reasonable legal fees; and (iii) claim, demand, proceeding, action or cause of action including those by third parties; in each case howsoever arising. <b>“Liability”</b> shall be construed accordingly;
<b>“Manufacturing Stage”</b>	a Stage of a Program during which production, testing and Disposition (if applicable) of Engineering Batches or cGMP Batches are intended to take place, including pre and post manufacturing activities; Facility change-over, setup, and cleaning before, between and after Batch manufacturing;
<b>“Modifications”</b>	a modification to a Facility; or equipment (including Process specific qualification and installation of existing equipment), required in order to perform a Process and detailed in the applicable Scope of Work;
<b>“Non-Conforming Batch”</b>	a cGMP Batch which has not been produced in accordance with cGMP and/or does not meet the Product Specification;
<b>“Non-Manufacturing Stage”</b>	a Stage of a Program, which is not a Manufacturing Stage, during which the non-manufacturing activities described in the relevant SoW are undertaken including the production and testing of Demonstration Batches;

<b>“Process”</b>	a particular process used, or to be used, for manufacture of a Product;
<b>“Process Specification”</b>	the Process operating parameters and specifications as documented in the regulatory submission and/or a QA Document which has been agreed by the parties for cGMP Batch production;
<b>“Process-Specific Consumable”</b>	a Consumable which is required to operate the Process and which is specific to the Process or a Consumable which is required in such large volumes as would not be possible for Fujifilm to consume during other manufactures and/or within the shelf life of such Consumable;
<b>“Process-Specific Equipment”</b>	an item of equipment which is required by Fujifilm to operate the Process and which is specific to the Process in addition to that equipment which Fujifilm uses in its Facilities as at the SoW Effective Date (which existing equipment is not already dedicated to other customer(s) of Fujifilm);
<b>“Product”</b>	the particular product or substance (compound or molecule) created during and as a result of performing the Process. The name of the relevant Product is identified in the applicable Scope of Work;
<b>“Product Specification”</b>	the Product specification, mutually agreed by the parties, which is documented in a QA Document;
<b>“Program”</b>	a program of work as set out in the applicable Scope of Work (or more than one Scope of Work, as the case may be) to be carried out by Fujifilm in accordance with the terms of this Agreement;
<b>“Program Cancellation Fee”</b>	the Program Cancellation Fee described in Schedule 1;
<b>“Program Manager”</b>	the Program manager appointed by each of Fujifilm and the Customer under the applicable SoW;
<b>“Program Plan”</b>	the Program plan controlled by Fujifilm’s Program Management and communicated to the customer from time to time;
<b>“Quality Agreement”</b>	the document agreed by the parties which sets out the mutually agreed quality standards applicable for any cGMP activity under the Program;
<b>“QA Documents”</b>	the Quality Agreement and the documents produced and approved in accordance with the Quality Agreement;

<b>“Regulatory Authority”</b>	the U.S. Food and Drug Administration, the European Medicines Agency, the Medicines & Healthcare products Regulatory Agency, the Danish Medicines Agency and any successor to any such entities;
<b>“Scope of Work” or “SoW”</b>	the document setting out the detail of the work to be undertaken by Fujifilm for the Customer;
<b>“SoW Effective Date”</b>	for each Scope of Work, the date that the Scope of Work is fully signed by all relevant parties;
<b>“Special Waste”</b>	waste or effluent which requires special handling including waste or effluent which is required to be collected in a special container (for example by tanker) for external disposal or which requires incineration;
<b>“Stage”</b>	a stage of the Program as described in the SoW;
<b>“Subcontracted Work”</b>	work subcontracted by Fujifilm under clause 21.3 but excluding any work subcontracted between FDBK, FDBT, FDBU and/or FDBD;
<b>“Tax”</b>	value added tax, sales tax or any other similar type of turnover tax; and
<b>“Willful Misconduct”</b>	a knowing violation of a reasonable and uniformly enforced rule or policy. It means intentionally doing that which should not be done or intentionally failing to do that which should be done, knowing that injury will probably result or recklessly disregarding the possibility that injury may result.

- 1.2 In this Agreement (except where the context otherwise requires) any words following the terms **“including”**, **“include”**, **“for example”** or any similar expression are by way of illustration and emphasis only and shall not limit the generality or extent of any other words or expressions.
- 1.3 Each Scope of Work will be entered into by FDBK, FDBT, FDBU or FDBD or a combination of FDBK, FDBT, FDBU and/or FDBD and, subject to clause 18.3, each reference to Fujifilm or a “party” in this Agreement shall apply only to such of FDBK, FDBT, FDBU and/or FDBD as is carrying out the Program under the relevant Scope of Work. Whichever of FDBK, FDBT, FDBU and/or FDBD has entered into the Scope of Work in respect of that Program shall be fully and solely responsible for the obligations and liabilities of that party under the Scope of Work.

- 1.4 Insofar as this Agreement obliges any party to this Agreement to negotiate, take action or to do something, that party shall conduct such negotiations, take such action or do such thing in good faith and, in the case of Fujifilm, using Commercially Reasonable Efforts to achieve the result contemplated in this Agreement. There shall be a general obligation on the parties to act in good faith in relation to the matters contemplated in this Agreement.
- 1.5 In the case of conflict or ambiguity between terms of the main body of this Agreement, any Schedule to this Agreement or any other terms in any Scope of Work, the order of priority shall be as follows: (i) the main body of the Agreement; (ii) the Schedules to the Agreement; and (iii) the main body of the Scope of Work unless a Scope of Work specifically varies a provision of the Agreement or a Schedule to the Agreement by reference to the provision it is amending in which case the Scope of Work shall take precedence in that instance.
- 1.6 In the case of conflict or ambiguity between the terms of this Agreement or any specific Scope of Work and the terms of the QA Documents, the terms of the QA Documents shall prevail solely in relation to cGMP quality matters subject to clause 9.10.
- 1.7 Where a defined term is used in clause 9 (Liability) it shall retain its meaning even when the entire word that is a defined term is in capitals.

## 2. **APPOINTMENT OF FUJIFILM**

- 2.1 This Agreement establishes the general terms and conditions applicable to Fujifilm's performance of each Program for the Customer and is structured so that a separate, numbered, Scope of Work (or in some cases multiple Scope of Works) shall be entered into by the parties for the provision of each Program.

- 2.2 The provisions of this Agreement shall apply to each Scope of Work and no Scope of Work shall be effective or binding on any party until it has been signed by an authorized representative of each contracting party.
- 2.3 Nothing in this Agreement or any Scope of Work shall oblige any party to enter into any Scope of Work and each Scope of Work constitutes a separate contract.

3. **TERM**

- 3.1 This Agreement shall come into force on the Effective Date and shall continue until terminated by a party in accordance with the terms of this Agreement.
- 3.2 A party may terminate this Agreement upon giving 3 (three) months' written notice to the others, provided that there are no uncompleted Programs existing at the date such notice is given.
- 3.3 Each Scope of Work will take effect from the SoW Effective Date and shall continue until the earlier of:
  - 3.3.1 the date specified in the Scope of Work, or if no such date is specified, the date the Program, or part of the Program referred to in the Scope of Work is completed; or
  - 3.3.2 termination of this Agreement or the relevant Scope of Work in accordance with the terms of this Agreement.

4. **PERFORMANCE OF PROGRAMS**

- 4.1 Fujifilm shall carry out each Program, or parts of a Program, using Commercially Reasonable Efforts in accordance with:
  - 4.1.1 the terms of this Agreement and any Scope of Work;
  - 4.1.2 Applicable Laws;
  - 4.1.3 the Quality Agreement and cGMP (in both cases when applicable); and



- 4.1.4 the Process Specification for the applicable cGMP Batch (if any).
- 4.2 The parties agree that it shall not be considered a breach of this Agreement by Fujifilm if an objective of a Program is not achieved provided that Fujifilm has complied with its obligations set out in clause 4.1 and the cause of such non-achievement is [\*\*\*]. Notwithstanding any contrary provisions in this Agreement, the parties acknowledge and agree that the services to be performed during the Programs are by their nature developmental and Fujifilm cannot (and consequently does not) guarantee to the Customer the achievement of a successful outcome for a Program, production of Conforming Batches or production of a specified volume of Product.
- 4.3 Each Scope of Work contains assumptions on which Fujifilm's ability to perform the Program depends. If an assumption set out in the Scope of Work proves to be materially incorrect or actual circumstances materially differ from an assumption (including if such assumption cannot be met at such time as Fujifilm reasonably requires to enable it to perform its obligations) then the parties shall agree a Change to account for the change in assumption.
- 4.4 The Customer shall:
- 4.4.1 meet all its obligations and responsibilities under this Agreement, any Scopes of Work (including, in particular, any Customer dependencies set out in a Scope of Work) and the Quality Agreement;
- 4.4.2 comply with Applicable Laws; and
- 4.4.3 promptly provide all assistance, information, and advice and do all acts which Fujifilm may reasonably request to enable Fujifilm to comply with its obligations and responsibilities under this Agreement, any Scope of Work and the Quality Agreement.

## 5. **QUALITY AND REGULATORY MATTERS**

### 5.1 Quality Agreement

- 5.1.1 As soon as reasonably practicable following the Effective Date the parties shall execute the Quality Agreement (unless the Quality Agreement has already been executed prior to the Effective Date).

5.1.2 The Customer acknowledges that Fujifilm shall not commence any cGMP activity until the Quality Agreement is executed by both parties.

## 5.2 Regulatory Assistance

- 5.2.1 The Customer shall provide Fujifilm with a copy of the Customer's Chemistry, Manufacturing and Controls section of any submission to a Regulatory Authority supporting the Customer's regulatory filing activities for the applicable Drug Product or Process which relates to or contains information about the Process; the Facility (including Fujifilm equipment); the Fujifilm Services and/or the Ancillary Services ("CMC Section") in accordance with the Quality Agreement. The Customer shall not submit a CMC Section without Fujifilm's written approval in relation to any information regarding, or impacting, Fujifilm including any information regarding the Process, equipment, controls and analytics or any information provided to the Customer by Fujifilm related to or in accordance with the Quality Agreement.
- 5.2.2 During each Program the Customer may request assistance from Fujifilm in respect of the CMC Section, subject to payment by the Customer of a reasonable commercial rate for such assistance and Fujifilm's reasonable expenses. However, no advice or assistance given by Fujifilm shall be deemed to be or construed as a guarantee that a Drug Product will receive regulatory approval.
- 5.2.3 Fujifilm will provide one electronic (PDF) copy of any documents which may be reasonably required by the Customer in support of its regulatory filing activities. If the Customer requires copies of the laboratory notebooks, provision of these will be subject to discussion and agreement by the parties and agreement of an additional fee associated with copying.
- 5.2.4 The Customer shall have the right and responsibility for determining regulatory strategy, decisions and actions relating to each Program and any Product and/or Drug Product subject to clause 5.2.5 and provided that Fujifilm shall have the right and responsibility for determining regulatory strategy, decisions and actions to the extent relating to:
- (a) the Facility (including in particular utilities and equipment);
  - (b) Fujifilm's quality systems, policies and internal procedures;
  - (c) any requirement imposed on Fujifilm by a Regulatory Authority; or
  - (d) any other commitments made by Fujifilm prior to the relevant SoW Effective Date of the applicable Program,
- (each a "**Fujifilm Regulatory Responsibility**").

- 5.2.5 The Customer acknowledges that Fujifilm Quality Assurance team reserves the right to Disposition Product to the Customer in accordance with the Quality Agreement.
- 5.2.6 The Customer shall not make any change to its regulatory filings, including its Investigational New Drug application, which may have an impact on any Fujifilm Regulatory Responsibility without prior written agreement with Fujifilm.
- 5.3 No Debarment.
  - 5.3.1 Each Party represents and warrants to the other that neither it nor any of its officers, directors, or its employees performing services under this Agreement has been debarred, or convicted of a crime which could lead to debarment, under the Generic Drug Enforcement Act of 1992, 21 United States Code §§335(a) and (b).

**6. CONFORMING BATCHES AND NON-CONFORMING BATCHES**

- 6.1 Each cGMP Batch will be determined to be a Conforming Batch or a Non-Conforming Batch.
- 6.2 Deviations will be handled in accordance with the Quality Agreement and, for the avoidance of doubt, the Customer acknowledges that the occurrence of a Deviation does not automatically mean that a Batch is a Non-Conforming Batch.
- 6.3 In respect of Conforming Batches, Fujifilm will complete Disposition, issue a certificate of analysis and a cGMP compliant statement. The provisions of clauses 6.1 and 6.6 shall apply to Non-Conforming Batches only.
- 6.4 If a Batch is a Non-Conforming Batch and the cause of that Batch being a Non-Conforming Batch is not a failure by Fujifilm to comply with clause 4.1 [\*\*\*] then the Customer shall pay the Charges relating to the Non-Conforming Batch in full and the relevant Manufacturing Stage, Disposition and all related and ancillary activities shall be deemed to have been completed under the Scope of Work. Any further work in relation to the Non-Conforming Batch (such as analysis of the Batch) or manufacture of a replacement cGMP Batch shall be carried out at a time and price to be agreed in writing by the parties in a Change.

- 6.5 If a Batch is a Non-Conforming Batch and the cause of the Batch being a Non-Conforming Batch is a failure by Fujifilm to comply with clause 4.1 or caused by the Gross Negligence or Willful Misconduct of Fujifilm, its employees or contractors, then Fujifilm shall use Commercially Reasonable Efforts to manufacture a replacement cGMP Batch (“**Replacement Batch**”) as soon as is reasonably practicable. In these circumstances the Customer shall pay for:
- 6.5.1 all Charges in respect of the original Non-Conforming Batch in accordance with the SoW (save that any installments of the Charges which are not due until after the date that the Non-Conforming Batch is determined to be a Non-Conforming Batch shall become due on completion of the Replacement Batch); and
  - 6.5.2 the Charges for the Ancillary Services provided in relation to the Replacement Batch but the Fujifilm Services provided in relation to the Replacement Batch shall be free of charge.
- 6.6 If the Customer requests delivery of a Non-Conforming Batch, the parties shall agree in writing (in a Change) on fair consideration payable for that Non-Conforming Batch. Fujifilm agrees to deliver a Non-Conforming Batch to the Customer on the express condition that it (i) will not be used for human or clinical trials; (ii) will be labeled as “Not for Human Use”; and (iii) is subject to the Customer’s indemnity given under clause 9.6.

## 7. **DELIVERY, TITLE AND RISK**

- 7.1 Delivery by Fujifilm to the Customer, or the Customer’s designee, of any material in connection with the Program including any quantity of Product manufactured during the Program, any Process-Specific Equipment and/or Process-Specific Consumables and return of any samples and cell lines supplied by the Customer (“**Materials**”) will be made Ex Works the Facility (Incoterms 2010) and clauses 7.2 to 7.6 shall apply to such Materials. Fujifilm shall package the relevant Material ready for shipment in accordance with the Customer’s reasonable instructions.

- 7.2 Delivery of Materials will be deemed to be complete on the date which Fujifilm makes the Materials available for collection by the Customer (which is the point of delivery as set forth in Ex Works (Incoterms 2010)) following notification, of at least [\*\*\*], by Fujifilm to the Customer that it will make those Materials available for collection (the “**Delivery Date**”). For the avoidance of doubt, Product subject to Disposition will not be made available for collection by the Customer until Disposition is complete and Product for which a licence is required under clause 10.3 will not be made available for collection by the Customer until a licence has been signed by the parties.
- 7.3 If the Customer fails to collect Materials within [\*\*\*] of the Delivery Date, Fujifilm will issue a further notice to the Customer specifying that the Materials will be destroyed if they are not collected within [\*\*\*] from the date of the notice. If the Customer does not collect the Materials within that [\*\*\*] period, Fujifilm may destroy the Materials at the Customer’s risk and expense.
- 7.4 Risk in Material shall pass to the Customer on the Delivery Date; save for risk in Product for which a licence is required under clause 10.3 in relation to which risk shall pass on the date on which Fujifilm notifies the Customer it would have made the Materials available for collection if a licence had been signed by the parties.
- 7.5 Title to the Product shall pass to the Customer on the Delivery Date.
- 7.6 Title to, and risk in, the Process-Specific Equipment and/or Process-Specific Consumables purchased by the Customer in accordance with Schedule 1 shall pass to the Customer when Fujifilm has received payment in full (in cash or cleared funds) for such items in accordance with paragraph 1.1 of Schedule 1 [\*\*\*].
- 7.7 From time to time Fujifilm may agree to store Materials (including intermediate Product for future processing) for Customer. If Fujifilm agree to store Materials the parties will enter into a storage agreement on Fujifilm’s standard terms.

- 7.8 Delivery of any materials which the Customer is required to supply to Fujifilm pursuant to the SoW shall be delivered to Fujifilm DDP, the Facility (Incoterms 2010). Risk in those materials remains with the Customer [\*\*\*].
8. **PRICE AND PAYMENT**
- 8.1 Under this Agreement, and the relevant Scope of Work, the Customer appoints Fujifilm to carry out services concerning the research and development, testing, manufacture and Disposition of the Product by Fujifilm under a Program. The Charges relate specifically to those services; and are not in consideration of the supply of any material (including Product) which Fujifilm may produce as a consequence of the performance of those services.
- 8.2 The Customer shall pay to Fujifilm for each Program:
- 8.2.1 the fees for the Fujifilm Services as set out in the relevant Scope of Work; and
- 8.2.2 the fees for Ancillary Services in accordance with Schedule 1, together the “Charges”.
- 8.3 Fujifilm may invoice the Customer for the Charges in respect of each Program in accordance with the terms set out in the Scope of Work and Schedule 1.
- 8.4 The Customer shall pay each invoice issued to it by Fujifilm within [\*\*\*] of the date of invoice, in full and in cleared funds in the currency specified in the SoW by electronic transfer to the financial institution specified in the relevant invoice.
- 8.5 The Charges are exclusive of any Tax which may apply and which shall be payable by the Customer to Fujifilm at the rate prescribed by law.
- 8.6 If there is a change in the rate of Tax payable or in the Tax treatment of some or all of the services provided by Fujifilm or the Product, a change of law or practice or interpretation of the existing legislation or revised determination by HMRC (Her Majesty’s Revenue and Customs) or the IRS (Internal Revenue Service), then the

Customer agrees that Fujifilm shall be entitled, where Tax is imposed on a supply by Fujifilm under or in connection with this Agreement, to invoice the Customer (in a valid Tax invoice) for a sum equal to the amount of the Tax which becomes due on that supply and any fees and/or interest which HMRC and/or the IRS levies on Fujifilm in relation to the outstanding sums and/or non-payment, unless such fees or interests arise directly from Fujifilm's negligence or Willfull Misconduct. The Customer shall pay those invoices in accordance with clause 8.4.

8.7 The Customer shall:

8.7.1 be responsible for the collection, remittance and payment of any or all taxes, charges, levies, assessments and other fees of any kind imposed by governmental or other authority in respect of the purchase, importation, exportation, sale or other distribution of any materials delivered to it by Fujifilm in connection with the Program; and

8.7.2 make all payments under this Agreement without withholding or deduction of, or in respect of, any tax unless required by law. If withholding tax is deducted then the Customer will provide all documentation required to enable Fujifilm to recover the tax withheld.

8.8 Without prejudice to any other right or remedy that it may have, if the Customer fails to pay any sum to Fujifilm on the due date for payment:

8.8.1 (except where the Customer has complied with its obligations in clause 8.9 below) the Customer shall pay interest on the overdue amount at the rate of [\*\*\*] ([\*\*\*] per cent) per month. Such interest shall be payable in respect of the period from the due date until actual payment of the overdue amount (whether before or after judgment) in accordance with clause 8.4; and

8.8.2 (except where the Customer has complied with its obligations in clause 8.9 below) Fujifilm may notify the Customer that if it does not pay Fujifilm will suspend work on the Program in respect of which payment is overdue, and if payment is not made within [\*\*\*] of such notice, Fujifilm may suspend such work until payment has been made in full.

8.9 If the Customer disputes the payment of any Charges or a part of them, the Customer shall:

- 8.9.1 notify Fujifilm of the disputed amount within [\*\*\*] of its receipt of the invoice in which such disputed amount is included giving reasonable details of the dispute; and
  - 8.9.2 pay the amount of Charges not in dispute in accordance with clause 8.4, and the dispute shall be dealt with under the dispute resolution process set out in clause 16.
- 8.10 If the Customer fails to pay any sum which is not the subject of a bona fide dispute under clause 8.9 when the same is due in accordance with clause 8.4 then Fujifilm may elect, at its discretion, to treat such non-payment as a material breach of either the relevant SoWs under clause 14.5.1 or a material breach of this Agreement under clause 14.2.1.
- 8.11 A party shall not be entitled to withhold, set off or reduce payment of any amounts payable under this Agreement by any amounts which it claims are owed to it by another party under this Agreement or any other agreement.

## 9. LIABILITY

- 9.1 Nothing in this Agreement limits or excludes the liability of any party to the other for any liability that is not permitted to be limited or excluded by law and clauses 9.2 to 9.7 are expressly agreed to be subject to this clause 9.1.
- 9.2 EXCEPT IN RESPECT OF BREACH BY FUJIFILM OF CLAUSE 12 (CONFIDENTIALITY) OR LIABILITY ARISING UNDER CLAUSE 11.1 (IPR INDEMNITY) AND SUBJECT TO CLAUSE 9.6.1, FUJIFILM'S TOTAL LIABILITY, WHETHER OR NOT ARISING PURSUANT TO AN INDEMNITY, IN CONTRACT, TORT (INCLUDING NEGLIGENCE OR BREACH OF STATUTORY DUTY), MISREPRESENTATION, RESTITUTION OR OTHERWISE ARISING UNDER THIS AGREEMENT OR A SCOPE OF WORK OR IN CONNECTION WITH THE PERFORMANCE OR CONTEMPLATED PERFORMANCE OF THIS AGREEMENT OR A SCOPE OF WORK SHALL IN ALL CIRCUMSTANCES BE LIMITED AS FOLLOWS:



- 9.2.1 WHEN THERE HAS BEEN NO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT BY FUJIFILM: IN RESPECT OF ALL LIABILITY ARISING UNDER A SCOPE OF WORK, FUJIFILM'S LIABILITY TO CUSTOMER SHALL BE LIMITED PER CALENDAR YEAR TO AN AMOUNT EQUAL TO THE CHARGES FOR FUJIFILM SERVICES PAID BY CUSTOMER IN RESPECT OF THAT SCOPE OF WORK DURING THAT CALENDAR YEAR; OR
- 9.2.2 WHEN THERE HAS BEEN GROSS NEGLIGENCE OR WILLFUL MISCONDUCT BY FUJIFILM: IN RESPECT OF ALL LIABILITY ARISING UNDER A SCOPE OF WORK, FUJIFILM'S LIABILITY TO CUSTOMER SHALL BE LIMITED PER CALENDAR YEAR TO AN AMOUNT EQUAL TO [\*\*\*] OF THE CHARGES FOR FUJIFILM SERVICES PAID BY CUSTOMER IN RESPECT OF THAT SCOPE OF WORK DURING THAT CALENDAR YEAR; AND
- 9.2.3 IN RESPECT OF ANY OTHER LIABILITY RELATING TO THIS AGREEMENT, FUJIFILM'S TOTAL LIABILITY TO CUSTOMER SHALL BE LIMITED PER CALENDAR YEAR TO [\*\*\*] ([\*\*\*]PER CENT) OF THE TOTAL CHARGES FOR FUJIFILM SERVICES PAID UNDER ALL SOWS IN FORCE DURING THAT CALENDAR YEAR.
- 9.3 UNDER NO CIRCUMSTANCES SHALL EITHER PARTY BE LIABLE, WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), FOR BREACH OF STATUTORY DUTY OR OTHERWISE, ARISING UNDER OR IN CONNECTION WITH THIS AGREEMENT FOR: LOSS OF PROFIT; LOSS OF BUSINESS; DEPLETION OF GOODWILL; LOSS OF ANTICIPATED SAVINGS; LOSS OR CORRUPTION OF DATA OR INFORMATION; OR ANY SPECIAL, INDIRECT, CONSEQUENTIAL LOSS, COSTS, DAMAGES, CHARGES OR EXPENSES, INCLUDING, IN THE CASE OF FUJIFILM'S LIABILITY, THE COSTS OF ANY RECALL OF THE PRODUCT OR DRUG PRODUCT. THE FOREGOING LIMITATION OF LIABILITY SHALL NOT BE CONSTRUED AS LIMITING A PARTY'S INDEMNIFICATION OBLIGATIONS UNDER THIS AGREEMENT FOR CLAIMS MADE BY THIRD PARTIES.

- 9.4 Liability for Product and Drug Product: the Customer shall Indemnify Fujifilm from and against all Liabilities incurred by Fujifilm or its Affiliates arising out of or resulting from the use or resale of the Product or the Drug Product or any other deliverable arising out of the Program except when those Liabilities have arisen pursuant to Gross Negligence or Willful Misconduct of Fujifilm in which case Fujifilm shall bear such Liabilities up to the amounts for which Fujifilm is liable to the Customer under clause 9.2.2.
- 9.5 Liability for the Process: the Customer shall Indemnify Fujifilm from and against all Liabilities arising from third party claims incurred by Fujifilm or its Affiliates arising out of or resulting from the use or operation of the Process (or any part of the Process) except [\*\*\*] to the extent that Fujifilm is liable under clause 11.1.
- 9.6 Liability for Non-Conforming Batches:
- 9.6.1 THE PROVISIONS OF CLAUSE 6 SHALL APPLY TO NON-CONFORMING BATCHES AND FUJIFILM SHALL HAVE NO LIABILITY IN RESPECT OF NON-CONFORMING BATCHES EXCEPT TO COMPLY WITH CLAUSE 6.
- 9.6.2 FUJIFILM GIVES NO, AND DISCLAIMS ANY, WARRANTIES, UNDERTAKINGS OR SIMILAR TERMS WHATSOEVER (WHETHER AS TO COMPLIANCE WITH CGMP OR OTHERWISE) IN RESPECT OF NON-CONFORMING BATCHES OR THE USE BY THE CUSTOMER OF NON-CONFORMING BATCHES.
- 9.6.3 If the Non-Conforming Batch is delivered to the Customer pursuant to clause 6, the Customer shall fully Indemnify Fujifilm from and against all Liabilities incurred by Fujifilm or its Affiliates arising out of or resulting from the use of that Non-Conforming Batch.
- 9.6.4 The Customer uses any material produced in a Non-Conforming Batch at its own risk and shall undertake such tests as are necessary in order to satisfy itself that such materials are fit for the purposes for which the Customer proposes to use such materials.
- 9.7 Liability for Demonstration and Engineering Batches
- 9.7.1 FUJIFILM GIVES NO, AND DISCLAIMS ANY, WARRANTIES, UNDERTAKINGS OR SIMILAR TERMS WHATSOEVER (WHETHER AS TO COMPLIANCE WITH CGMP OR OTHERWISE) IN RESPECT OF THE DEMONSTRATION BATCHES OR ENGINEERING BATCHES OR THE USE BY THE CUSTOMER OF AN ENGINEERING BATCH OR DEMONSTRATION BATCH.

- 9.7.2 FUJIFILM SHALL HAVE NO LIABILITY TO THE CUSTOMER IN CONNECTION WITH DEMONSTRATION BATCHES OR ENGINEERING BATCHES OR THE USE BY THE CUSTOMER OF THE DEMONSTRATION BATCHES OR ENGINEERING BATCHES.
- 9.7.3 The Customer shall fully Indemnify Fujifilm from and against all Liabilities incurred by Fujifilm or its Affiliates arising out of or resulting from the use of the Demonstration Batches or Engineering Batches.
- 9.7.4 The Customer uses any material produced in a Demonstration Batch or Engineering Batch at its own risk and shall undertake such tests as are necessary in order to satisfy itself that such materials are fit for the purposes for which the Customer proposes to use such materials. Customer expressly agrees that Product produced pursuant to a Demonstration Batch or an Engineering Batch is not suitable, and will not be used, for human consumption or use or in clinic trials.
- 9.8 FUJIFILM GIVES NO, AND DISCLAIMS ANY, WARRANTIES, UNDERTAKINGS OR SIMILAR TERMS WHATSOEVER IN RESPECT OF ANY ADVICE OR ASSISTANCE GIVEN BY FUJIFILM IN CONNECTION WITH THE USE OF THE PRODUCT IN OR AS A DRUG PRODUCT (INCLUDING ADVICE OR ASSISTANCE RELATED TO ANY REGULATORY APPROVAL).
- 9.9 ALL WARRANTIES, CONDITIONS AND OTHER TERMS, EXPRESS (OTHER THAN THOSE SET OUT IN THIS AGREEMENT) OR IMPLIED, STATUTORY, CUSTOMARY OR OTHERWISE WHICH BUT FOR THIS CLAUSE 9 WOULD OR MIGHT SUBSIST IN FAVOR OF THE CUSTOMER, ARE (TO THE FULLEST EXTENT PERMITTED BY LAW) EXCLUDED FROM THIS AGREEMENT INCLUDING, IN PARTICULAR, ANY IMPLIED WARRANTIES RELATING TO MERCHANTABILITY, FITNESS FOR A PARTICULAR USE AND NON-INFRINGEMENT.
- 9.10 No claim for Liabilities incurred pursuant to the Quality Agreement may be made under the Quality Agreement by any party. Accordingly, performance of the Quality Agreement shall be deemed to be performance under the SoW to which the Quality Agreement relates and as such any breach of the Quality Agreement shall be deemed to be a breach of the relevant SoW and all Liabilities shall be construed and limited in accordance with this clause 9.

- 9.11 If the parties enter into a Scope of Work for stability or analytical services subject to this Agreement, the parties agree that such services shall be incidental and it is therefore reasonable that such Scope of Work may contain lower limits on Fujifilm's Liability than are contained in this Agreement, in which case such limitation as set out in such Scope of Work shall apply to such Scope of Work.
- 9.12 Each party agrees to take all reasonable steps to mitigate any Liabilities that it may seek to claim from the other under or in connection with this Agreement including pursuant to any Indemnity.
- 9.13 If a party is entitled to benefit from an Indemnity (the "**Indemnified Party**") from another party (the "**Indemnifying Party**") in accordance with this Agreement (an "**Indemnity Claim**"), the Indemnified Party shall notify the Indemnifying Party in writing of the Indemnity Claim (providing all necessary details) and the Indemnifying Party shall at its own expense conduct all negotiations and any litigation arising in connection with the Indemnity Claim provided always that:
- 9.13.1 the Indemnifying Party shall consult the Indemnified Party on all substantive issues which arise during the conduct of such litigation and negotiations and shall take due and proper account of the interests of the Indemnified Party;
  - 9.13.2 the Indemnifying Party shall not settle or compromise the Indemnity Claim without the Indemnified Party's prior written consent (not to be unreasonably withheld or delayed) and shall ensure that any settlement or compromise does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of the Indemnified Party;
  - 9.13.3 the Indemnified Party shall not make any admissions or admit liability in relation to the Indemnity Claim or otherwise settle any Indemnity Claim without the written agreement of the Indemnifying Party; and
  - 9.13.4 the Indemnified Party shall fully cooperate and assist the Indemnifying Party, at the Indemnifying Party's cost and expense, in relation to the Indemnity Claim (without limiting the extent of the Indemnity).

9.14 Each party shall maintain adequate insurance (which may be through self-insurance) to enable it to satisfy its Liabilities under this Agreement as they arise.

## 10. INTELLECTUAL PROPERTY

- 10.1 Subject to clause 10.2 and clause 10.7, no party shall acquire any right, title or interest in another party's Background IP.
- 10.2 The Customer grants to Fujifilm a royalty-free, worldwide licence to use Customer's Background IP for the exclusive purpose of performance of the Program. Customer warrants that, to its knowledge, the use by Fujifilm (or its Authorized Third Parties) of Customer's Background IP in accordance with this clause 10.2 shall not infringe any third party's Intellectual Property Rights.
- 10.3 Fujifilm shall not be obliged to deliver any materials (including any cell bank or cell paste) comprising Fujifilm Expression Technology unless and until a licence is granted in writing on terms to be agreed under the relevant Background IP. Fujifilm shall be entitled to charge the Customer for storage of any such materials which would have been delivered under clause 7.2 if a licence had been granted under this clause 10.3 until the time that such licence is granted. Customer acknowledges that storage may be at a third party storage facility unless Fujifilm and Customer have agreed in writing otherwise. Fujifilm shall not employ Fujifilm Expression Technology in a Process without Customer's prior written consent.
- 10.4 All title to and all rights and interest in any Customer Foreground IP shall vest in Customer. Fujifilm hereby assigns to the Customer all title to and all rights and interest it owns in any Customer Foreground IP.
- 10.5 All title to and all rights and interest in any Fujifilm Foreground IP shall vest in Fujifilm. The Customer hereby assigns to Fujifilm all title to and all rights and interest it owns in any Fujifilm Foreground IP.

- 10.6 If requested to do so by another party, each party shall at the expense of the requesting party execute all documents and do all such further acts as the requesting party may reasonably require to perfect the assignment under clause 10.4 or 10.5.
- 10.7 Fujifilm grants to Customer a royalty free, non exclusive, worldwide licence to use the Fujifilm Foreground IP and Fujifilm Background IP other than Fujifilm Expression Technology employed in a Process for the exclusive purpose of manufacturing the Product.

#### **11. INTELLECTUAL PROPERTY INDEMNITY**

- 11.1 Fujifilm shall fully Indemnify the Customer from and against all Liabilities incurred by the Customer or its Affiliates arising out of any third party claim that Fujifilm's use of Fujifilm's Background IP or Fujifilm Foreground IP in performing the Program infringes such third party's Intellectual Property Rights.
- 11.2 The Customer shall fully Indemnify Fujifilm from and against all Liabilities incurred by Fujifilm or its Affiliates arising out of any third party claim that:
- 11.2.1 Fujifilm's use of (i) materials provided by the Customer to Fujifilm or (ii) Customer's Intellectual Property Right, in accordance with this Agreement; or
- 11.2.2 (excluding Liabilities in relation to which Fujifilm Indemnifies the Customer pursuant to clause 11.1) the development or manufacture of the Product and/or any other deliverables which are an output of the Program or the use of the Process in accordance with this Agreement, infringes such third party's Intellectual Property Rights.
- 11.3 If a third party claim is made in accordance with clause 11.1 or 11.2 then the Indemnified Party may require the Indemnifying Party to prove that it has adequate financial means to pay out under the indemnity provisions provided for in those clauses (for example by way of set aside capital or insurance). If the Indemnifying Party cannot so prove it has the financial standing to meet its obligations with respect to the Indemnities under the applicable clause then the Indemnified Party has the option to terminate this Agreement on written notice. If Fujifilm exercises its option to terminate under this clause 11.3 then (without prejudice to the survival of the relevant Indemnity obligations) such termination shall be treated as a termination under clause 14.3.2.

## 12. CONFIDENTIALITY

12.1 Each party (the “**Receiving Party**”) agrees with the other (the “**Disclosing Party**”):

12.1.1 to keep the Disclosing Party’s Confidential Information confidential;

12.1.2 not to access or use the Disclosing Party’s Confidential Information save for the purposes of:

- (a) complying with its obligations under this Agreement and each SoW;
- (b) complying with, or exercising its rights under, any confidentiality disclosure agreement then in force between the parties; or
- (c) undertaking activity by and between the parties to enable the parties to explore a new business opportunity involving the Customer and one or more of the other parties (“**New Opportunity**”);

12.1.3 not to disclose the Disclosing Party’s Confidential Information to a third party other than to the Receiving Party’s:

- (a) Affiliates;
- (b) officers and employees and those of its Affiliates that need to know the Confidential Information for the purpose of performing its obligations under this Agreement or in relation to a New Opportunity;
- (c) contractors and sub-contractors, professional advisers, consultants and agents and those of its Affiliates who are engaged to advise that party in connection with the Program or this Agreement or in relation to a New Opportunity; and
- (d) any other person to whom the Disclosing Party agrees in writing that Confidential Information may be disclosed in connection with the Program,

the “**Authorized Third Parties**”. By way of clarification, Authorized Third Parties include the persons described above regardless of whether the Disclosing Party disclosed Confidential information to such persons or if Receiving Party discloses Confidential Information to such persons.

- 12.2 The Receiving Party shall procure that each of the Authorized Third Parties agree or are otherwise bound to written or professional confidentiality, nondisclosure and nonuse obligations substantially similar to those set forth in this clause 12 and shall remain primarily liable to the Disclosing Party for any act or omission of any of the Authorized Third Parties (including failure of such Authorized Third Parties to comply with such confidentiality, nondisclosure and nonuse obligations).
- 12.3 The Receiving Party shall within [\*\*\*] of receipt of the Disclosing Party's written request (including after termination of this Agreement and any SoW):
- 12.3.1 deliver up to the Disclosing Party all items and copies of all or any Confidential Information of the Disclosing Party;
  - 12.3.2 expunge and/or make irretrievable all Confidential Information of the Disclosing Party from any computer or other similar device in which it is stored and, if further requested, certify in writing signed by an authorized representative that it has done the same (provided that this clause 12.3.2 shall not apply to automatically archived electronic files or electronic back-ups made in the ordinary course of business, on secured central servers, which cannot reasonably be deleted and such electronic files shall be retained subject to the obligations of confidence set out in this clause 12); and
  - 12.3.3 destroy all hard copies of notes, analyses or memoranda containing the Disclosing Party's Confidential Information (and, if further requested, certify in writing signed by an authorized representative that it has done the same)
- provided that the Receiving Party shall be entitled to retain copies of the Confidential Information to enable it to monitor its obligations under this Agreement or which is required to be maintained by Applicable Laws or a Regulatory Authority subject always to the obligations of confidence under this Agreement.
- 12.4 Confidential Information shall not include information which:
- 12.4.1 is, or becomes, generally available to the public other than as a direct or indirect result of the information being disclosed by the Receiving Party or its Authorized Third Parties in breach of this Agreement (except that any compilation of otherwise public information in a form not publicly known shall still be treated as Confidential Information);
  - 12.4.2 was available to the Receiving Party on a non-confidential basis prior to disclosure by the Disclosing Party;
  - 12.4.3 was, is, or becomes available to the Receiving Party on a non-confidential basis from a person who, to the Receiving Party's knowledge, is not under any confidentiality obligation in respect of that information;



- 12.4.4 was lawfully in the possession of the Receiving Party without an obligation of confidentiality before the information was disclosed by the Disclosing Party
- 12.4.5 is developed by or for the Receiving Party independently of the information disclosed by the Disclosing Party;
- 12.4.6 is necessarily disclosed by the Receiving Party pursuant to a statutory or regulatory obligation, but then only to the extent of such required disclosure and save that the Receiving Party shall, to the extent it is lawful to do so, give prompt notice to the Disclosing Party of any such potential disclosure and allow the Disclosing Party a reasonable opportunity to limit such disclosure; or
- 12.4.7 the Disclosing Party and the Receiving Party agree in writing is not confidential.
- 12.5 Customer may use and disclose Confidential Information of Fujifilm solely to the extent necessary in communications with existing or prospective Customer's investors, sub-licensees or commercial partners provided that: (a) such recipients are under obligations of confidentiality at least as restrictive as the terms of this clause 12; (b) none of the financial terms of the Agreement are disclosed to any such investor, sublicensee or commercial partner without the prior written consent of Fujifilm; (c) no disclosures are made to contract development and/or manufacturing organizations in the biopharmaceutical industry without Fujifilm's prior written consent; and (d) such recipients are treated as Authorized Third Parties for the purposes of clause 12.2. Additionally, Customer shall notify Fujifilm of any disclosure to any investors, sub-licensees or commercial partners, including the name of the recipient and date and nature of disclosure.
- 12.6 [\*\*\*]

### 13. CHANGE

- 13.1 If a party wishes to change ("**Change**") any aspect of this Agreement or any Scope of Work (including if additional or different work is requested or required such as the production of a different number of Batches or if such work is required to be carried out at a different time or if actual circumstances differ from the assumptions set out in the Scope of Work (including if such assumptions cannot be met at all or in a timely fashion)) then Fujifilm shall draft a Change document using its standard format for that Change and the Change shall not be effective until the applicable Change document is signed by each party.

13.2 If the parties are unable to agree the terms of a Change and the dispute resolution process set out in clause 16 has been unsuccessfully exhausted Fujifilm may terminate the relevant SoW(s) and any cancellation or termination fees [\*\*\*].

#### 14. DELAY, CANCELLATION, TERMINATION AND CONSEQUENCES

##### 14.1 Delay:

14.1.1 If the Customer either causes or requests a delay to any Stage; Stages; or the Program as a whole and that delay prevents, or will prevent, Fujifilm from performing a Manufacturing Stage or the Program as a whole in accordance with the Program Plan (a "Delay") and the parties cannot agree a Change to accommodate that Delay:

- (a) then either the Batch Cancellation Fee(s) or the Program Cancellation Fee (as applicable) shall be payable; and
- (b) the Batch Cancellation Fee or Program Cancellation Fee (as applicable) shall be calculated by reference to the date on which such written request was given by the Customer in relation to the Delay if such written request is given, or the date on which the Delay is caused, as determined by Fujifilm acting reasonably.

14.1.2 If the parties agree a Change to accommodate the Delay and that results in the Delayed Stage(s) or Program (as applicable) being performed partially within the original period reserved for the Delayed Stage(s) or Program as a whole, then the Batch Cancellation Fee(s) or the Program Cancellation Fee (as applicable) shall be reduced proportionally to reflect the period of time that the Program was Delayed (as determined by Fujifilm acting reasonably).

##### 14.2 Termination of this Agreement as a whole

14.2.1 Fujifilm collectively or the Customer shall be entitled to terminate this Agreement (and all Scope of Works made under it) immediately upon giving notice to the other if:

- (a) the other party commits a material breach of this Agreement and such breach:

- (i) is not capable of remedy (a breach shall be considered capable of remedy if the party in breach can comply with the provision in question in all respects other than as to time of performance); or
  - (ii) is capable of remedy, [\*\*\*] period after receipt of notice giving full particulars of the breach and requiring it to be remedied, provided, however, that (a) material breaches of clause 8.4 must be cured within [\*\*\*] and (b) such cure period shall be suspended during any time that a party seeks resolution of a dispute as to whether an alleged material breach occurred pursuant to clause 16;
- (b) the other party takes any step or action in connection with its entering administration, provisional liquidation or any composition or arrangement with its creditors (other than in relation to a solvent restructuring), being wound up (whether voluntarily or by order of the court, unless for the purpose of a solvent restructuring), having a receiver appointed to any of its assets or ceasing to carry on business or, if the step or action is taken in another jurisdiction, in connection with any analogous procedure in the relevant jurisdiction;
  - (c) the other party or the person controlling the other party has a change in control and the new controlling entity is reasonably considered by the party giving notice either to be its direct competitor or not to have reasonable financial creditworthiness.

#### 14.3 Termination of a Stage/Program by the Customer for Convenience

14.3.1 The Customer may cancel a Non-Manufacturing Stage or Non-Manufacturing Program for convenience by giving written notice to Fujifilm in which case:

- (a) the SoW shall terminate in respect of that Stage if a Stage is being terminated but in all other respects the SoW shall continue in full force;
- (b) the SoW(s) in respect of that Program shall terminate if a Program as a whole is being terminated; and
- (c) the Customer shall pay Fujifilm the Charges that are due for the Fujifilm Services that have been performed and [\*\*\*] of the Charges for the Fujifilm Services that have not yet been performed in that Non-Manufacturing Stage or Program (as applicable) [\*\*\*] plus any Charges owed in respect of Ancillary Services.

14.3.2 The Customer may cancel any Manufacturing Stage for convenience by giving written notice to Fujifilm in which case:

- (a) the SoW shall terminate in respect of that Stage;

- (b) in all other respects the SoW shall continue in full force;
- (c) the Customer shall pay the Charges that are due for the Fujifilm Services that have been performed, the relevant Batch Cancellation Fee plus any Charges owed in respect of Ancillary Services.

14.3.3 The Customer may cancel a Program which includes Manufacturing for convenience by giving written notice to Fujifilm in which case:

- (a) the SoW(s) in respect of that Program shall terminate;
- (b) the Customer shall pay the Charges that are due for the Fujifilm Services that have been performed, the Program Cancellation Fee plus any Charges owed in respect of Ancillary Services.

14.3.4 If a critical Stage, or more than one Stage, under a Program which includes Manufacturing is cancelled and that has the effect of cancelling that Program as a whole (as determined by Fujifilm acting reasonably) then clause 14.3.3 shall apply instead of clauses 14.3.1 and/or 14.3.2.

#### 14.4 Termination of a Program Due to Technical Issues.

14.4.1 Fujifilm may terminate a Program at any time up to completion of the Non-Manufacturing Stages by giving written notice to the Customer if Fujifilm reasonably believes that it will be unable to carry out and complete such Program in accordance with the Scope of Work(s) due to discovery of a factor (other than a breach by Fujifilm of clause 4.1) which:

- (a) adversely affects the development of the Process; or
- (b) adversely affects, or is likely to adversely affect, production of Product in the Facility when conducted in accordance with Fujifilm's standard operating procedures or methods
- (c) is likely to have an adverse effect on a customer's Product licence (being the licence authorising marketing of a medicinal product granted by a Regulatory Authority (also known as a "Marketing Authorisation" in Europe)) or Manufacturing Licence (being the licence to manufacture biotechnology-derived Drug Substances issued to Fujifilm by the applicable Regulatory Authority) as a result of the Product being introduced into the Facility and that customer was a customer of Fujifilm prior to the Program commencement,,

provided that, in each case, the factor was not known and could not reasonably have been known at the commencement of the applicable Program and provided further that Fujifilm has used commercially reasonable efforts in its attempts to address the factor prior to such termination.

- 14.4.2 If Fujifilm terminates a Program under clause 14.4.1 then the Customer shall pay the Charges that are due for the Fujifilm Services that have been performed and [\*\*\*] of the Program Cancellation Fee plus any Charges owed in respect of Ancillary Services.
- 14.5 Termination of a Scope of Work for Breach
- 14.5.1 If any party commits a material breach of a Scope of Work, the non-breaching party may give written notice to the other party, specifying the nature of the material breach and, [\*\*\*] after receipt of such notice (provided, however, that (a) payment obligations must be cured within [\*\*\*] and (b) the cure period shall be suspended during any time that a party seeks resolution of a dispute as to whether an alleged material breach occurred pursuant to clause 16), then the non-breaching party shall have the right, in its sole discretion, to immediately terminate that Scope of Work.
- 14.5.2 If Fujifilm terminates a Scope of Work under this clause 14.5 or all Scopes of Work under clause 14.2 then, without prejudice to Fujifilm's other rights and remedies, the Program Cancellation Fee shall be payable by the Customer to Fujifilm plus any Charges owed in respect of Ancillary Services.
- 14.6 If a party exercises any of its rights of termination in respect of only one or more SoWs then:
- 14.6.1 this Agreement shall terminate in respect of those SoWs and the provisions of this Agreement relating to termination of this Agreement shall apply in relation to those SoWs; and
- 14.6.2 in all other respects this Agreement shall continue in full force and those SoWs in respect of which the party has terminated this Agreement will be deemed to be removed from the definition of the SoWs.
- 14.7 Additional Consequences of Termination
- 14.7.1 The termination of this Agreement or any Scope of Work shall be without prejudice to the rights and remedies of any party which may have accrued up to the date of termination.
- 14.7.2 On termination of this Agreement or any SoW (as applicable) for any reason whatsoever:
- (a) save as set out in clause 10 the relationship of the parties shall cease and any rights or licenses granted under or pursuant to this Agreement shall cease to have effect save as (and to the extent) expressly provided for in this clause 14;

- (b) the provisions of the following clauses together with any provision which expressly or by implication is intended to come into or remain in force on or after termination shall continue in full force and effect clauses 1, 6 [\*\*\*] 8, 9, 10, 11, 12, 14, 16, 18, and 23; and
- (c) the Customer shall immediately pay to Fujifilm all of Fujifilm's outstanding unpaid invoices and interest and, in respect of Fujifilm Services and Ancillary Services supplied but for which no invoice has been submitted, Fujifilm may submit an invoice, which shall be payable immediately on receipt.

**15. FORCE MAJEURE**

- 15.1 Based on conditions as of the Effective Date, Fujifilm has the capacity to undertake the anticipated Fujifilm Services under this Agreement. However, Fujifilm is unable to predict how the global COVID-19 pandemic (the "**Pandemic**") may affect Fujifilm's ability to perform its obligations set forth in this Agreement or a Scope of Work. Effects of the Pandemic, including staff shortages (either as a result of government recommended/mandated physical isolation or distancing or illness of our workers) and the inability to obtain required supplies or services, may require Fujifilm to alter the way its facilities operate after the Effective Date. As of the Effective Date, Fujifilm has a process to fairly address the needs of its various customers. However, Customer acknowledges and accepts that factors arising from the Pandemic may impact Fujifilm's ability to perform its obligations under this Agreement or a Scope of Work for an indeterminate period of time, and as a result, the expected timing of performance of Fujifilm Services (or Ancillary Services) on behalf of Customer under a Scope of Work may need to be deferred upon notice to Customer by Fujifilm.
- 15.2 Subject to clause 15.33, no party shall be liable to the other(s) for any delay or non-performance of its obligations under any Scope of Work (except for the payment of money) arising from a Force Majeure Event.

- 15.3 If a party is delayed or prevented from performing its obligations due to a Force Majeure Event such party shall:
- 15.3.1 give notice of such delay or prevention due to the Force Majeure Event to the non-affected parties as soon as reasonably practical stating the commencement date and extent of such delay or prevention, the cause thereof and its estimated duration;
  - 15.3.2 use reasonable endeavors to mitigate the effects of such Force Majeure Event, provided that such party shall not be required to procure materials or services at unreasonable prices or under unreasonable terms; and
  - 15.3.3 resume performance of its obligations as soon as reasonably practicable.
- 15.4 If a party's delay or prevention due to the Force Majeure Event in question continues for more than [\*\*\*] any party to the affected Scope of Work may give notice in writing to the other(s) to terminate that Scope of Work. The notice to terminate must specify the termination date, which must not be less than [\*\*\*] after the date on which the notice is given, and once such notice has been validly given, that Scope of Work will terminate on that termination date.

16. **DISPUTE RESOLUTION**

16.1 **Quality Disputes:** If there is a dispute in relation to or in connection with the QA Documents, such dispute shall be dealt with in accordance with the procedures set out in the Quality Agreement.

16.2 **Business Escalation:**

16.2.1 In respect of any dispute concerning this Agreement (other than a dispute in connection with the QA Documents) the parties shall seek to resolve the matter as follows:

- (a) by referral in writing summarizing the nature of the dispute by a party in the first instance to the decision of each party's Program Manager;
- (b) if the dispute is not resolved within [\*\*\*] of its referral to the Program Managers it shall be referred to the decision of Fujifilm's Chief Business Officer and the Customer's Chief Executive Officer; and

- (c) if the dispute is not resolved within [\*\*\*] of its referral to Fujifilm's Chief Business Officer and the Customer's Chief Executive Officer it shall be referred to the decision of each party's President or Chief Executive Officer (as applicable/appropriate).

**16.3 Arbitration:**

16.3.1 Any dispute, claim or controversy arising out of or relating to this Agreement or the breach, termination, enforcement, interpretation or validity thereof (including all issues or disputes regarding the existence, validity, scope or applicability of this agreement to arbitrate, the arbitrability of any claims, and the proper parties to the arbitration) shall be determined by arbitration in New York, New York and the arbitration shall be administered by JAMS pursuant to its Comprehensive Arbitration Rules and Procedures

before three arbitrators. Judgment on the Award may be entered in any court having jurisdiction.

16.4 **General:** Notwithstanding the provisions of this clause 16 any party may commence or take proceedings or seek remedies before the courts or any other competent authority for interim, interlocutory or injunctive remedies in relation to this Agreement.

**17. AUDIT**

**17.1 Quality Audit:**

17.1.1 The Customer may carry out quality audits at the times, and in accordance with the terms, set out in the Quality Agreement provided that access by the Customer and/or its representatives to records, information and systems shall be on a supervised basis, subject to the Customer complying with security and confidentiality requirements of Fujifilm to protect information which relates to anything other than the Programs and shall be limited to a maximum of [\*\*\*] people for [\*\*\*].

17.1.2 Audit access shall not be extended to confidential records which [\*\*\*].

17.1.3 If Fujifilm is in material breach of clause 4.1.3 of this Agreement or if the Customer reasonably believes that Fujifilm is in material breach of clause 4.1.3 of this Agreement, the Customer may upon giving reasonable written notice to Fujifilm carry out an audit on the same basis as in clauses 17.1.1 and 17.1.2.

17.1.4 Additional audits (other than those carried out pursuant to clause 17.1.3) may be carried out on the same basis as in clauses 17.1.1 and 17.1.2 subject to (i) payment of Fujifilm's costs and expenses and the agreement of a commercial rate; and (ii) the Customer ensuring such audit will not delay or disrupt Fujifilm's operations at the Facility.



**18. NOTICES**

- 18.1 Subject to clause 18.2 the parties may communicate with each other in any way that is normal in the course of their business.
- 18.2 Any notice required to be given under clauses 3, 8, 9, 11, 12, 14, 15, 16, 17, 18.2, 19, 20 or 21 shall only be effective if it is in writing, sent to a party at its address or email address and for the attention of the individual, as set out in Schedule 2 (or such other address, email address or individual as that party may notify the other in accordance with this clause 18) and is given in accordance with clauses 18.31.1 to 18.5 below.
- 18.3 Where a notice must be given to Fujifilm under clauses 3.2, 14 or 21.2 such notice must be given to FDBK, FDBT, FDBU and FDBD.
- 18.4 Notice may be given by hand or sent by email, recorded delivery, registered post or airmail and will be deemed to have been duly served:
- 18.4.1 if delivered by hand, at the time and date of delivery;
  - 18.4.2 if sent by email, at the time and date of sending;
  - 18.4.3 if sent by recorded delivery or registered post, [\*\*\*] from the date of posting (such date as evidenced by postal receipt); and
  - 18.4.4 if sent by registered airmail, [\*\*\*] from the date of posting,
- provided that, where in the case of delivery by hand or transmission by email, such delivery or transmission occurs either after 4.00pm on a Business Day, or on a day other than a Business Day, service will be deemed to occur at 9.00am on the next Business Day.
- 18.5 In proving service of a notice it will be sufficient to prove that delivery was made or that the envelope containing the notice or document was properly addressed and posted (either by prepaid first class recorded delivery post or by prepaid airmail, as the case may be) or that no failed delivery message was received, as the case may be.

## 19. EXPORT/IMPORT CONTROLS AND SANCTIONS COMPLIANCE

- 19.1 The Customer shall at all times during the term of this Agreement comply with applicable Sanctions or Export/Import Laws and ensure that it has in place appropriate controls and safeguards to prevent any action being taken by it that would amount to or result in a violation of or non-compliance with any Sanctions or Export/Import Laws.
- 19.2 The Customer shall provide all information that Fujifilm may reasonably require from time to time in order for Fujifilm to assess and/or manage its compliance with Sanctions and Export/Import Laws (including provision of end-user statements or applicable Authorizations and notifying Fujifilm of any restrictions or export compliance obligations prior to providing Fujifilm access to controlled information/technology).
- 19.3 The Customer will not directly or indirectly use, sell, dispose of, (re)export, transship or otherwise transfer any Product, software, technology or Confidential Information: (i) unlawfully to any country in respect of which a Sanctions Authority maintains Sanctions or a Sanctioned Person; (ii) in a manner that would expose Fujifilm to the risk of negative consequences under Sanctions; or (iii) in violation of Export/Import Laws.
- 19.4 If any Authorization is required so that the performance of a Program does not contravene any Sanctions or Export/Import Laws, the Customer will at its own cost and expense obtain that Authorization and Fujifilm shall provide any commercially reasonable assistance (including reasonable information) that the Customer may require for the purposes of obtaining that Authorization. The Customer's rights and Fujifilm's obligations under this Agreement or any SoW in relation to that Program shall immediately be suspended if any required Authorization is not obtained. In the event that the Customer's rights and Fujifilm's obligations are suspended for more than [\*\*\*] calendar days, a Program may be terminated immediately by Fujifilm giving written notice to the Customer. If Fujifilm terminates a Program under this clause 19.4 then the Customer shall pay the Charges that are due for the Fujifilm Services that have been performed during that Program and [\*\*\*] of the Program Cancellation Fee plus any Charges owed in respect of Ancillary Services.

19.5 The Customer shall Indemnify Fujifilm against any and all Liabilities which Fujifilm incurs as a result of the Customer's non-compliance with the terms of this clause 19.

19.6 In this clause 19 the following terms have the following meanings:

- “Authorization”** all consents, licences, authorisations, approvals, permissions, registrations, certificates and clearances and any precondition in any relevant jurisdiction;
- “Export/Import Laws”** (a) any laws of the United States of America, the United Kingdom, the European Union or of any of its Member States or Japan that relate to the control of (re)export, transfer or import of Products, software or technology and technical data; or (b) any other (re)export, transfer or import controls or restrictions imposed or adopted by any government, state or regulatory authority in a country in which obligations under this Agreement are to be performed;
- “Sanctions”** any economic, financial, trade or other sanction, embargo, import or export ban, prohibition on transfer of funds or assets or on performing services or equivalent measure imposed by any Sanctions Authority or by the laws of any state or any union of states from time to time;

**“Sanctions Authority”**

means (a) the Security Council of the United Nations, (b) the Organization for Security and Co-operation in Europe (c) the United Kingdom, (d) the European Union, (e) any Member State of the European Union, (f) the United States of America, (g) Japan (h) the governments and official institutions or agencies of any of paragraphs (a) to (h) above and (i) any other regulatory body imposing or enforcing sanctions legislation in any country or territory from which or into which the Customer is exporting or importing; and

**“Sanctioned Person”**

any person who appears on or is owned, operated or controlled by any person who appears on any list issued or maintained by any Sanctions Authority or is referred to in any list or public announcement issued by any Sanctions Authority, in each case as amended, supplemented or substituted from time to time.

**20. MODERN SLAVERY AND CORRUPTION**

20.1 Each party shall endeavour to hold itself and its suppliers to the highest performance, ethical and compliance standards, including basic human rights, not engaging in any activity, practice or conduct which would constitute an offence under anti-slavery legislation in the United Kingdom, the U.S.A or Denmark, encouraging fair and equal treatment for all persons, the provision of safe and healthy working conditions, respect for the environment, the adoption of appropriate management systems and the conduct of business in an ethical manner. In performing its duties under this Agreement, each party acknowledges the value and importance of performance and ethical behaviour in its performance under this Agreement.

- 20.2 Each party warrants that on the Effective Date and each SoW Effective Date, it, its directors, officers or employees have not offered, promised, given, authorized, solicited or accepted any undue pecuniary or other advantage of any kind (or implied that they will or might do any such thing at any time in the future) in any way connected with this Agreement or a SoW and that it has taken reasonable measures to prevent subcontractors, agents or other third parties, subject to its control or determining influence, from doing so.
- 20.3 The parties agree that, at all times in connection with and throughout the term of this Agreement, they will comply with and that they will take reasonable measures to ensure that their subcontractors, agents or other third parties will comply with all applicable anti-corruption legislation including the Bribery Act 2010, the Foreign Corrupt Practices Act 1977 and the Danish Criminal Code.
- 20.4 Each party shall not do, or omit to do, any act that would cause one of the other parties to be in breach of any anti-corruption legislation including the Bribery Act 2010, the Foreign Corrupt Practices Act 1977 and the Danish Criminal Code.

## 21. ASSIGNMENT AND SUB-CONTRACTING

- 21.1 A party may assign or transfer all of its rights and responsibilities under this Agreement to:
- 21.1.1 an Affiliate provided that such Affiliate has reasonable financial creditworthiness; or
  - 21.1.2 a purchaser of all or substantially all of the equity of the assigning party provided that such third party has reasonable financial creditworthiness and is not a Competitor; or
  - 21.1.3 a purchaser of all or substantially all of assets to which this Agreement relates provided that such third party has reasonable financial creditworthiness and is not a Competitor; or
  - 21.1.4 an exclusive licensee of the Product provided that such third party has reasonable financial creditworthiness and is not a Competitor, but not otherwise without written consent of the other parties (such consent not to be unreasonably withheld or delayed) and provided that (a) the assignee agrees in writing to assume all obligations undertaken by its assignor in this Agreement and (b) in relation to assignment in part no such assignment shall relieve the assigning party of responsibility for the performance of any of its obligations under this Agreement.

- 21.2 If a party assigns or transfers all or any of its rights and responsibilities under clause 21.1 it shall immediately notify the other parties in writing.
- 21.3 Fujifilm may sub-contract all or any of its obligations under this Agreement provided that in relation to any subcontract manufacture, processing or handling of Product, Fujifilm will obtain the Customer's written consent (which may be by signature of the relevant SoW(s) which specify that an obligation will be sub-contracted).
- 21.4 The appointment of any subcontractor shall not relieve the party sub-contracting from any liability or obligation under this Agreement and the party sub-contracting shall be responsible for all acts and omissions of the subcontractor to the same extent as if they were its own acts or omissions.

## 22. GENERAL

- 22.1 **Entire agreement:** This Agreement and the Historic Documents contain all the terms which the parties have agreed with respect to their subject matter and supersede all previous agreements and understandings between the parties (whether oral or in writing) relating to such subject matter. Each party acknowledges and agrees that it has not been induced to enter into this Agreement by a statement or promise which it does not contain. Each party confirms that save as otherwise expressly set out in this Agreement and the Historic Documents, the other party gives no warranties either in this Agreement or elsewhere in connection with the provision of the Programs. Nothing in this clause 22.1 shall exclude or limit a party's liability for fraud, including fraudulent misrepresentation.
- 22.2 **Third party rights:** Save as expressly set out in this Agreement, the parties do not intend that any person who is not a party to this Agreement shall have any right to enjoy the benefit or enforce any of the terms of this Agreement.

- 22.3 Variations: With the exception of Changes, which shall be subject to clause 13, no variation of this Agreement shall be valid unless in writing and signed by a duly authorized representative of each of the parties. A party is entitled to assume that a representative of another party is authorized to act on that party's behalf if that individual is apparently or seemingly acting in the normal course of the business relationship. An exchange of emails shall not be capable of constituting an agreement to vary this Agreement.
- 22.4 Waiver: No failure or delay by a party to exercise any right or remedy provided under this Agreement or by law shall constitute a waiver of that or any other right or remedy, nor shall it preclude or restrict the further exercise of that or any other right or remedy. The single or partial exercise by any party of any right, power or remedy under this Agreement shall not in any circumstances preclude any other or further exercise of it, or the exercise of any right, power or remedy. A waiver by any party of a breach of any provision of this Agreement shall not be considered as a waiver of a subsequent breach of the same or any other provision of this Agreement.
- 22.5 Severability: If any provision of this Agreement or a SoW is found by any court or administrative body of competent jurisdiction to be invalid, illegal or unenforceable in any jurisdiction then it shall be deemed modified to the minimum extent necessary to make it valid, legal and enforceable. If such modification is not possible that provision shall be deemed to be omitted from this Agreement or the SoW in so far as this Agreement or that SoW relates to that jurisdiction and the validity and enforceability of that provision in other jurisdictions and the other provisions of this Agreement or SoW shall not be affected or impaired.
- 22.6 Counterparts:
- 22.6.1 This Agreement may be executed in any number of counterparts. Any party may enter into this Agreement by executing a counterpart and all the counterparts taken together will constitute one and the same agreement. This Agreement shall not be effective until each party has signed one counterpart.

22.6.2 Transmission of an executed counterpart of this Agreement (but for the avoidance of doubt not just a signature page) by email (in PDF, JPEG or other agreed format) shall take effect as delivery of an executed counterpart of this Agreement.

22.7 **Publicity:** The parties anticipate that there may be opportunities for joint or independent press releases or other announcements relating to the activities contemplated hereby. Notwithstanding the foregoing, no party shall use the name of the other party(ies) or the names of the employees of the other party(ies) nor disclose the terms of this Agreement or any SoW in any press releases, advertising or sales promotional material or in any publication without prior written permission of such party(ies). Such consent shall not be unreasonably withheld. This provision shall not restrict a party's ability to use the other parties names and to disclose the terms of this Agreement or a SoW to the extent, in the reasonable opinion of such party's legal counsel, required by law or by the requirements of any nationally recognized securities exchange, quotation system or over-the-counter market on which such party has its securities listed or traded. In the event that such disclosure is required as aforesaid, the disclosing party shall make reasonable efforts to provide the other parties with at least [\*\*\*] Business Days' advance notice and to coordinate reasonably with the other parties with respect to the wording and timing of any such disclosure, subject to the requirements of such securities laws.

### 23. GOVERNING LAW

23.1 The formation, existence, construction, performance, validity and all aspects whatsoever of this Agreement (including any Scopes of Work) or any term of it and any issues, disputes or claims arising out of or in connection with it (whether contractual or non-contractual in nature) shall be governed by, and construed in accordance with, the laws of the State of Delaware.



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**IN WITNESS** of the above the parties have signed this Agreement on the dates set out next to their signature.

**Signature Page**

**SIGNED** for and on behalf of **FUJIFILM DIOSYNTH BIOTECHNOLOGIES TEXAS, LLC:**

**Signature:** /s/ Gerry Farrell

Title:

**Date:** February 13, 2021

**SIGNED** for and on behalf of **FUJIFILM DIOSYNTH BIOTECHNOLOGIES U.S.A., INC:**

**Signature:** /s/ Andy Fenny

Title:

**Date:** February 12, 2021

**SIGNED** for and on behalf of **FUJIFILM DIOSYNTH BIOTECHNOLOGIES UK LIMITED:**

**Signature:** /s/ Paul Found

Title:

**Date:** February 22, 2021

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**SIGNED for and on behalf of FUJIFILM DIOSYNTH BIOTECHNOLOGIES DENMARK APS:**

**Signature:** /s/ Lars Petersen

**Title:**

**Date:** February 24, 2021

**SIGNED for and on behalf of VIGIL NEUROSCIENCE, INC.:**

**Signature:** /s/ Ivana Magovcevic-Liebisch

**Title:** President & CEO

**Date:** February 11, 2021

## Schedule 1 Charges

The Customer will pay to Fujifilm the Charges for the Fujifilm Services in accordance with the Scope of Work and clause 8 (the Fujifilm Services being the services to be performed by Fujifilm that are described in the relevant Scope of Work which are not Ancillary Services).

The Customer will also pay Charges to Fujifilm in consideration of the research and development and technical consultancy services in relation to the procurement, testing and management of Consumables; Subcontracted Work (including delivery of material to and from such subcontractors); Process-Specific Equipment (including installation and qualification thereof); Modifications; and Special Waste (the “**Ancillary Services**”) as calculated in accordance with this Schedule 1.

### 1. Charges for Consumables in Non-Manufacturing Stage and Manufacturing Stage

- 1.1 At the time set out in the Scope of Work, or in the course of the Program as mutually agreed in writing by the parties, the Customer shall pay to Fujifilm an amount in advance in consideration of the Ancillary Services relating to the purchase of Consumables intended to be used during the applicable Non-Manufacturing Stages and Manufacturing Stages. This will be an amount based upon an estimation of the sums required to purchase Consumables based upon Fujifilm’s historical data from previous manufactures at the applicable scale of production plus [\*\*\*] of such sums (the “**Consumables Advance Payment**”).
- 1.2 On completion of each applicable Non-Manufacturing Stage or Manufacturing Stage, Fujifilm shall calculate the expenditure incurred in respect of Consumables procured for use during such Non-Manufacturing Stage or Manufacturing Stage and shall add a sum equivalent to [\*\*\*] of all such expenditure on to such sum, the aggregate amount being referred to as “**Actual Production Expenditure**”.

- 1.3 If the Actual Production Expenditure is greater than the Consumables Advance Payment plus any other amounts paid under paragraph 1.4, Fujifilm shall issue a further invoice for the Ancillary Services in relation to the Consumables for a sum equivalent to the difference on a monthly basis with a [\*\*\*] markup. If the Actual Production Expenditure is less than the Consumables Advance Payment, Fujifilm shall issue a credit note against the earlier invoice for a sum equivalent to the difference to be applied to the Charges for the following Stage upon Completion of reconciliation (if there is one), and if there is not a following Stage, Fujifilm shall promptly refund such amount.
- 1.4 Each month, Fujifilm may issue an invoice to the Customer in relation to the Ancillary Services regarding any Consumables used during or procured for use in any Stage during the previous month (or if longer, since the last invoice under this paragraph 1.4 was issued) in amounts which are not covered by the Consumables Advance Payment equivalent to the expenditure on such additional Consumables during the previous month plus an amount equal to [\*\*\*] of such expenditure.
- 1.5 For the avoidance of doubt, Process-Specific Consumables paid for by Customer shall be used solely for the Program
2. **Additional Charges in Respect of Subcontracted Work, Process-Specific Equipment, Modifications and Special Waste**
  - 2.1 Fujifilm shall invoice the Customer for the Ancillary Services relating to the Subcontracted Work, Process-Specific Equipment, Modifications and disposal of Special Waste as the case may be in the same amount as the expenditure which Fujifilm incurs in respect of such Ancillary Services plus a sum equivalent to [\*\*\*] of such expenditure.
  - 2.2 Fujifilm shall issue invoices for such Ancillary Services either at the time Fujifilm incurs expenditure in respect of the Subcontracted Work, Process-Specific Equipment, Modifications and/or disposal of Special Waste or as set out in the relevant SoW as the case may be.

3. **Purchase of Process-Specific Consumables and Process-Specific Equipment by the Customer on completion of the relevant Stage or termination**
- 3.1 Subject to:
- 3.1.1 clause 10.3;
- 3.1.2 the manufacturer's consent and requirements (if applicable) and subject to the Customer's warranty that it will purchase a direct license of any relevant firmware/software required to operate the Process-Specific Equipment;
- 3.1.3 and the payment of all relevant Charges,
- 3.2 the Customer shall have an option to purchase from Fujifilm such Process-Specific Equipment and/or Process-Specific Consumables purchased and paid for by Fujifilm under paragraphs 1 and 2 of this Schedule 1 as remain following completion of the relevant Stage for which such Process-Specific Equipment and/or Process-Specific Consumables were purchased for consideration of [\*\*\*] payable, if the work is performed in the UK or USA respectively, at the time of such sale. Fujifilm shall, at Customer's request and in accordance with Clause 7, deliver to Customer Process-Specific Equipment and/or Process-Specific Consumables previously paid for by Customer under paragraphs 1 and 2.
- 3.3 The option in paragraph 1.1 shall be exercised within [\*\*\*] following completion of the relevant Stage under which such Process-Specific Equipment and/or Process-Specific Consumables were purchased or termination of this Agreement (whichever occurs first).
- 3.4 The Customer shall be responsible for any cost and expense associated with removal/delivery of such Process-Specific Equipment and/or Process-Specific Consumables and documenting such sale. Such Process-Specific Equipment and/or Process-Specific Consumables shall be delivered Ex Works the Facility (Incoterms 2010). Risk in and title to such Process-Specific Equipment and/or Process-Specific Consumables shall pass on delivery.
- 3.5 Fujifilm shall be free to use or destroy (at the Customer's cost) any item(s) of Process-Specific Equipment or Process-Specific Consumables in respect of which the option referred to in this paragraph 3 is not exercised or for which their assigned expiry date has passed.
4. **Product Samples, Cell Banks and other materials on completion or termination**
- 4.1 Prior to completion of each Program, the Customer shall notify Fujifilm what (if any) samples and/or cell banks used during the Program the Customer wishes Fujifilm to deliver to the Customer and, subject to clause 10.3, delivery of those samples/cell banks shall take place in accordance with clause 7. If the Customer does not give any such notification to Fujifilm prior to completion of the Program, Fujifilm may destroy such samples and/or cell banks without further notice at the Customer's cost.

4.2 Fujifilm shall be entitled, in a manner of its choosing and without further notice to the Customer, to dispose of any Product, samples, cell banks or other property of the Customer which remains in the possession of Fujifilm in excess of [\*\*\*] following the effective date of termination.

**5. Batch Cancellation Fees**

5.1 The Batch Cancellation Fee shall be:

5.1.1 the applicable percentage of the Batch Fee (in each case as detailed in the SoW) set out in the table below, which will reflect the period of time between:

- (a) notice of cancellation of such Batch(es); and
- (b) the then current date for commencement of the relevant Stage;

5.1.2 less any sums already received under the SoW for the Fujifilm Services in relation to the cancelled Batch(es) that have not been performed at the time the Batch Cancellation Fee is calculated.

5.2 Percentage of Batch Fee payable:

<b>Period prior to Commencement of Stage</b>	<b>Percentage of Batch Fee</b>
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

[\*\*\*]

6. **Program Cancellation Fees**

6.1 The Program Cancellation Fee shall be:

- 6.1.1 the applicable percentage of the total price of the remaining part of the Program (detailed in the SoW(s)) that is being cancelled set out in the table below, which will reflect the period of time between:
  - (a) notice of cancellation of the Program; and
  - (b) the then current date for commencement of the Manufacturing Stage(s)
- 6.1.2 less any sums already received under the SoW(s) for the Fujifilm Services in relation to the cancelled element of the Program that have not been performed at the time the program Cancellation Fee is calculated.

6.2 Percentage of total price of the Program payable:

<b>Period prior to Commencement of the Manufacturing Stage(s)</b>	<b>Percentage of remaining total Program price</b>
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

6.3 [\*\*\*]For the avoidance of doubt the Customer will not be expected to pay both Batch Cancellation Fees and Program Cancellation Fees and the Program Cancellation Fee for Non-Manufacturing Program are the fees described in clause 14.3.1.



Schedule 2 Addresses for Notice

**FDBK:**

Contact: Chief Operating Officer

Address: Fujifilm Diosynth Biotechnologies, Belasis Avenue, Billingham, TS23 1LH, England

Nominated email address: [\*\*\*]

**FDBT:**

Contact: Chief Operating Officer

Address: FUJIFILM Diosynth Biotechnologies Texas, LLC, 3939 Biomedical Way, College Station, TX 77845

Nominated email address: [\*\*\*]

**FDBU:**

Contact: Chief Operating Officer

Address: FUJIFILM Diosynth Biotechnologies U.S.A., Inc., 101 J. Morris Commons Lane, Morrisville, NC 27560

Nominated email address: [\*\*\*]

**FDBD:**

Contact: [\*\*\*]

Address: Biotek Alle 1, 3400 Hillerød, Denmark

Nominated email address: [\*\*\*]

**Customer: Vigil Neuroscience, Inc.**

Contact: [\*\*\*]

Address: 300 Technology Square, 8<sup>th</sup> floor, Cambridge MA 02139

Nominated email address: [\*\*\*]

**Copied to:**

Contact: Legal Counsel

Address: Fujifilm Diosynth Biotechnologies, Belasis Avenue, Billingham, TS23 1LH, England

Nominated email address: [\*\*\*]

**Copied to:**

Contact: Legal Department

Address: FUJIFILM Holdings America Corporation, 200 Summit Lake Drive, Valhalla, NY 10595.

Nominated email address: [\*\*\*]

**Copied to:**

Contact: Legal Department

Address: FUJIFILM Holdings America Corporation, 200 Summit Lake Drive, Valhalla, NY 10595.

Nominated email address: [\*\*\*]

**Copied to:**

Contact: Legal Counsel

Address: FUJIFILM Diosynth Biotechnologies, Belasis Avenue, Billingham, TS23 1LH, England

Nominated email address: [\*\*\*]

**Copied to:**

Contact: [\*\*\*]

Address: 300 Technology Square, 8<sup>th</sup> floor, Cambridge MA 02139

Nominated email address: [\*\*\*]



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LEASE

From

100 FORGE HOLDING LLC,

Landlord

To

VIGIL NEUROSCIENCE, INC.,

Tenant

100 Forge Road, Watertown, Massachusetts

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**LEASE**

**ARTICLE 1: BASIC TERMS**

The following terms used in this Lease shall have the meanings set forth below. Other terms are defined throughout this Lease and indexed on Schedule 1 attached hereto and made a part hereof.

**Date of Lease:** As of September 20, 2021

**Landlord:** 100 Forge Holding LLC,  
a Delaware limited liability company

**Original Address of Landlord:** c/o Boylston Properties  
800 Boylston Street, Suite 1390  
Boston, Massachusetts 02199  
Attention: Mark A. Deschenes

With a copy to:  
Sherin and Lodgen, LLP  
101 Federal Street  
Boston Massachusetts 02110  
Attention: Peter Friedenberg, Esq.

**Tenant:** Vigil Neuroscience, Inc.,  
a Delaware corporation

**Original Address of Tenant:** 300 Technology Square, Floor 8  
Cambridge, Massachusetts 02139  
Attention: Jennifer Ziolkowski, Chief Financial Officer  
e-mail: [\*\*\*]

With a copy to:  
Goodwin Procter LLP  
100 Northern Avenue  
Boston, Massachusetts 02210  
Attention: Nicole W. Riley, Esq.

**Guarantor:** N/A

**Development:** The mixed-use development commonly known as “Arsenal Yards”

**Address of Development:** 100 Forge Road  
Watertown, Massachusetts 02472

**Building:** The building shown as “Building G” on Exhibit A attached hereto (the “**Building**”), to be constructed within the Development on a parcel of land (the “**Land**”) which is more particularly described on Exhibit A-1 attached hereto. The Building will contain approximately 165,600 rentable square feet on the basement through ninth floors thereof.

**Unit:** Primary Unit 100 Forge Building G (or such other name given to such unit by Landlord), initially consisting of the entire Building. Unless and until Landlord elects to create additional Primary Condominium Units within the Building in accordance with the provisions of the Condominium Documents, the terms “Building” and “Unit” as used in this Lease shall both mean the entire Building.

**Premises:** Approximately 19,734 rentable square feet on the seventh (7<sup>th</sup>) floor of the Building, including approximately 243 rentable square feet within Chemical Storage Room 105 on the first (1<sup>st</sup>) floor of the Building for Hazardous Materials storage, together with any additional areas within the Building devoted to Tenant’s use, all as shown on **Exhibit B** attached hereto, as measured in accordance with the provisions of Section 2.01(f).

**Tenant’s Percentage Share:** 11.92%. See Section 5.02.

**Term Commencement Date:** The earlier of (i) the date on which Tenant commences construction activities at the Premises with the written consent of Landlord, or (ii) the Delivery Date.

**Term:**

**Initial Term:** The period commencing on the Term Commencement Date and expiring on the day (“**Termination Date**”) before the day which is ten (10) years after the Rent Commencement Date.

**Extension Term:** One (1) extension term of five (5) Lease Years. See Section 3.03(a).

**Rent Commencement Date:** The earlier of (i) the date on which Tenant first occupies any portion of the Premises for the conduct of its business, or (ii) six (6) months after the Delivery Date (as the Delivery Date may be adjusted by reason of Landlord Delay or Force Majeure, but not by reason of Tenant Delay, as provided in the Work Letter attached hereto as **Exhibit C**). Reference is made to Paragraph A(11) of the Work Letter for further provisions relating to the adjustment of the Rent Commencement Date.

**Lease Year:** The first Lease Year begins at 12:01 a.m. on the Term Commencement Date and ends at 11:59 p.m. on the last day of the calendar month in which the first anniversary of the Rent Commencement Date occurs, except that if the Rent Commencement Date occurs on the first day of a calendar month then the first Lease Year shall end on the day before the first anniversary of the Rent Commencement Date occurs. Each subsequent Lease Year shall be a period of twelve (12) full calendar months commencing at 12:01 a.m. on the day after the expiration of the preceding Lease Year.

**Estimated Delivery Date:** May 1, 2022. Reference is made to the Work Letter attached hereto as **Exhibit C** for the description of the Delivery Date and other matters related thereto.

**Permitted Uses:** Laboratory and research and development use, including, but not limited to, life sciences, pharmaceuticals, micro-biology, chemistry, vivarium, and similar scientific research uses, which may also include ancillary support office and conference rooms, provided the area devoted to support office and conference rooms shall not in the aggregate exceed sixty percent (60%) of the rentable area of the Premises (collectively, "**Life Science Uses**"). In no event shall Tenant or any subtenant or other occupant of all or any portion of the Premises use the Premises or any portion thereof in a manner that includes activities that would qualify or be characterized as any biosafety level ("**BSL**") other than BSL1 or BSL2.

**Landlord's Broker:** Cushman & Wakefield

**Tenant's Broker:** Colliers

**Security Deposit:** Letter of Credit in the amount of Nine Hundred Twenty-Seven Thousand Four Hundred Ninety-Eight (\$927,498.00) Dollars. See Article 14.

**Base Rent:**

**Initial Term:** The following amounts:

<u>Lease Year</u>	<u>Rate per rentable s.f.</u>	<u>Monthly Amount</u>	<u>Annual Amount</u>
1	\$ 94.00	\$154,583.00	\$1,854,996.00
2	\$ 96.82	\$159,220.49	\$1,910,645.88
3	\$ 99.72	\$163,989.54	\$1,967,874.48
4	\$ 102.72	\$168,923.04	\$2,027,076.48
5	\$ 105.80	\$173,988.10	\$2,087,857.20
6	\$ 108.97	\$179,201.17	\$2,150,413.98
7	\$ 112.24	\$184,578.68	\$2,214,944.16
8	\$ 115.61	\$190,120.65	\$2,281,447.74
9	\$ 119.08	\$195,827.06	\$2,349,924.72
10	\$ 122.65	\$201,697.93	\$2,420,375.10

Note: Base Rent for Lease Year 1 does not accrue and is not due or payable until the Rent Commencement Date.



<b>Extension Term:</b>	Fair Market Rent (as defined in <u>Section 3.03(b)</u> ).	
<b>Initial Tenant Work:</b>	As set forth in <u>Exhibit C</u> attached hereto.	
<b>Base Building Work:</b>	As set forth in <u>Exhibit C</u> attached hereto.	
<b>Exhibits:</b>	Schedule 1:	Index of Defined Terms
	Exhibit A ( <u>Art 1</u> ):	Plan showing Development and the Building/Unit
	Exhibit A-1 ( <u>Art. 1</u> ):	Legal Description of the Land
	Exhibit A-2 ( <u>Sec. 2.02(c)</u> ):	Plan Showing Location of Dedicated Parking Spaces/Plan Showing No Parking Areas
	Exhibit B ( <u>Art. 1</u> ):	Floor Plan showing the Premises
	Exhibit C ( <u>Sec. 3.01</u> ):	Work Letter
	Exhibit C-1 ( <u>Sec. 2.01(e)</u> ):	List of Base Building Plans and Specifications
	Exhibit C-2:	Tenant's Test-Fit Plan
	Exhibit C-3:	Lab Shell Specifications Tenant/ Landlord Matrix of Responsibility
	Exhibit C-4:	Landlord's Current Construction Schedule
	Exhibit D ( <u>Sec. 2.01(e)</u> ):	Title Matters
	Exhibit E ( <u>Sec. 6.02</u> ):	Cleaning Specification for Common Areas and Landlord Services
	Exhibit F ( <u>Sec. 6.02</u> ):	Shuttle Service
	Exhibit G:	Reserved
	Exhibit H ( <u>Sec. 9.07</u> ):	Landlord's Rules and Regulations
	Exhibit I ( <u>Sec. 9.10</u> ):	LEED Requirements
	Exhibit J ( <u>Sec. 10.05(b)</u> ):	Construction Documents Requirements
	Exhibit K ( <u>Sec. 10.05(c)</u> ):	Tenant Work Insurance Schedule
	Exhibit L ( <u>Sec. 10.05(c)</u> ):	Landlord's Guidelines for Tenant Work
	Exhibit M ( <u>Sec. 15.02</u> ):	Form of SNDA
	Exhibit N ( <u>Sec. 15.04</u> ):	Form of Estoppel Certificate
	Exhibit O ( <u>Sec. 16.06</u> ):	Form of Notice of Lease

**ARTICLE 2: PREMISES; APPURTENANT RIGHTS; COMMON AREAS; PARKING; CHANGES TO DEVELOPMENT**

**2.01. Lease of Premises; Appurtenant Rights.**

(a) General. Landlord hereby leases the Premises to Tenant, and Tenant hereby leases the Premises from Landlord, for the Term. The Premises will be located in the Unit and may include additional areas within the Building as further shown on Exhibit B attached hereto. The Land and the Building are shown on the preliminary site plan attached hereto as Exhibit A (provided, however, that the site plan and any other applicable exhibit (including Exhibit A-1) is attached hereto merely to identify the location of the Premises and the initial boundaries of the Development and not the identities of any actual tenants or occupants of the Development, and nothing contained therein or in this Lease shall obligate Landlord to

construct any buildings or other improvements shown on said site plan, other than the Premises). Subject to Landlord's Rules and Regulations and the provisions of this Lease, Tenant shall have access to the Premises, the parking areas serving the Premises, and the Common Areas necessary for Tenant's use of, or access to and egress from, the Premises 24 hours a day, 7 days a week; *provided, however*, that in times of emergency as determined by Landlord, Landlord shall have the right to limit access to the Building by Tenant and all other tenants, provided that any such limits on access shall cease as soon as the emergency is resolved. For purposes of this Section 2.01(a), an "**emergency**" shall mean an event, such as a natural disaster, pandemic or other public health emergency (including actions required by any governmental authority to be taken by Landlord or Tenant in connection with such pandemic or public health emergency), fire or act of terrorism, not within the reasonable control of either party hereto, that poses an immediate threat to life or property (including the Development).

(b) Exclusions. The Premises exclude the perimeter walls thereof (other than the inner surfaces thereof), as well as all Common Areas, including the common stairways and stairwells, entranceways and the main lobby, elevators and elevator wells, fan rooms, roofs, off-floor electric and off-floor telephone closets, freight elevators, and pipes, ducts, conduits, wires and appurtenant fixtures serving other parts of the Building or the Development (exclusively or in common) and other common areas and facilities from time to time designated as such by Landlord. The Premises also exclude the common corridors, elevator lobby, and common toilets, as well as common on-floor electric, telephone and janitor closets, located within the Unit.

(c) Appurtenant Rights. Tenant shall have, as appurtenant to the Premises, the right to use in common with others, and subject to the applicable provisions of the Condominium Documents and the provisions of this Lease (including Landlord's Rules and Regulations): (i) the Condominium Common Areas, (ii) the common facilities of the Building, including the common loading docks, the Neutralization System, lobbies, hallways, stairways and elevators of the Building serving the Premises in common with other portions of the Building, and other Building amenities (including bicycle storage area, lockers and showers), common mechanical and utility rooms, common Building chases and risers, common driveways and parking areas, and trash enclosures, and (iii) if all or any portion of the Premises is located on a multi-tenant floor, the common corridors, elevator lobby, and common toilets, as well as common on-floor electric, telephone and janitor closets, located on such floor (the areas and facilities described in clauses (i) – (iii) are hereinafter referred to, collectively, as the "**Common Areas**"). The ground floor lobby of the Building shall not be use as a senior center or community center, and shall not be used by Tenant for holding events or meetings open to the public without the prior written consent of Landlord in each instance, which consent may be withheld in accordance with the provisions of the Condominium Documents. Regularly scheduled deliveries/loading shall be restricted to the hours of 7:00 a.m. to 5:00 p.m.

(d) Reservations. In addition to other rights reserved herein or by law, Landlord reserves the right from time to time, without incurring any liability to Tenant or otherwise affecting Tenant's obligations under this Lease, provided that Landlord shall provide at least forty-eight (48) hours prior written notice to Tenant, which may be by e-mail to Tenant at [zjiolkowski@vigilneuro.com](mailto:zjiolkowski@vigilneuro.com), (except in the case of an emergency, in which case notice shall be provided as soon as reasonably practicable) and shall use commercially reasonable efforts to avoid (except in emergency) interruption of Tenant's use and access to the Premises for the Permitted Use: (i) to install, use, maintain, repair, replace and relocate for service to the Premises and other parts of the Building, or either, chases, shafts, pipes, ducts, conduits, wires and appurtenant fixtures wherever located in the Premises or the Building or elsewhere in the Development; (ii) to alter, eliminate or relocate any common area or facility of the Building or the Unit, including the lobbies and entrances (provided that Landlord shall provide a bicycle storage area, showers and lockers for use by all tenants of the Building throughout the Term of this Lease); and (iii) to grant easements and other rights with respect to the Development; *provided that* (a) to the maximum extent practicable, no such installations, replacements or relocations in the Premises shall be placed below ceiling surfaces, above floor surfaces or

to the inside of perimeter walls, (b) Tenant's use of and access to the Premises, the Common Areas and its parking spaces shall not be adversely impacted by any such additions, alterations, improvements, repairs, installations, replacements, eliminations or relocations, and (c) all such work necessitating entry into the Premises shall be subject to the provisions of Section 9.06. Landlord shall have the exclusive rights: to use all or any part of the roof of the Building for any purpose, and to erect, in connection with repairs, maintenance or replacements with respect to the Building, temporary scaffolds and other aids to construction on the exterior of the Building, provided that access to the Premises shall not be denied thereby. Landlord may also make any use it desires of the side or rear walls of the Building, provided that such use shall not encroach on the interior of the Premises.

(e) Condominium; Title Matters. Tenant acknowledges and confirms that the Premises will be subject to and benefitted by:

(i) That certain Amended and Restated Master Deed of the Arsenal Condominium dated June 5, 2018 and recorded in the Middlesex South District Registry of Deeds (the "**Registry**") in Book 71113, Page 277, as amended by that certain Amendment to Amended and Restated Master Deeds of the Arsenal Condominium (n/k/a Arsenal Yards Primary Condominium) dated as of January 4, 2021 recorded with the Registry in Book 76688, Page 393, as affected by that certain First Supplemental Declaration of Arsenal Yards Primary Condominium dated December 28, 2020 recorded with the Registry in Book 76554, Page 403, and as affected by that certain Second Supplemental Declaration of Arsenal Yards Primary Condominium recorded with the Registry in Book 77151, Page 184 (as the same may hereafter be amended, supplemented, restated or otherwise modified from time to time, collectively, the "**Primary Condominium Master Deed**"); and

(ii) That certain Declaration of Trust of Arsenal Yards Primary Condominium Trust dated as of June 5, 2018 and recorded in the Registry in Book 71113, Page 410, as amended by that certain First Amendment to Declaration of Trust of Arsenal Yards Primary Condominium Trust dated January 13, 2021 and recorded with the Registry in Book 76690, Page 426 (as the same may hereafter be amended, supplemented, restated or otherwise modified from time to time, collectively, the "**Primary Condominium Trust**").

The Primary Condominium Master Deed has created the Arsenal Yards Primary Condominium (the "**Primary Condominium**"), which consists of several primary condominium units (collectively, the "**Primary Units**" and individually, a "**Primary Unit**"), as well as common elements and limited common elements as described therein. The Premises will be a portion of the Unit. The Primary Condominium Trust is the organization of holders of fee simple title to the Primary Units (the "**Primary Unit Owners**") formed to manage and regulate the Primary Condominium. The affairs of the Primary Condominium are governed by the Primary Board of Trustees (the "**Primary Board**"), all as set forth in the Primary Condominium Master Deed and the Primary Condominium Trust. The Primary Condominium Master Deed and the Primary Condominium Trust and all Plans (defined in the Condominium Documents) related thereto, all as the same may be amended, supplemented, restated or otherwise modified, are herein collectively referred to as the "**Condominium Documents**". Landlord agrees that it shall diligently enforce all of its rights under the Condominium Documents with respect to the Unit and the Premises throughout the Term of this Lease, including any extensions thereof.

Further, this Lease and Tenant's rights hereunder are subject to and benefitted by all matters of record, including those set forth on Exhibit D attached hereto and incorporated herein by reference, and all permits and approvals affecting the Premises, the Building or the Development, all as the same may be amended from time to time (collectively, the "**Title Matters**"). Landlord covenants that Landlord shall not enter into any modification, alteration or amendment of, the Condominium Documents or Title Matters (except for amendments pursuant to Supplemental Declarations (defined in the Condominium Documents) to implement

Development Rights and Special Declarant Rights (both as defined in the Condominium Documents)), which would reduce the scope of the items that comprise the Permitted Use, materially increase any of Tenant's obligations or materially reduce any of Tenant's rights under this Lease. Landlord shall vote the percentage interest applicable to the Unit and any and all other Primary Units owned by Landlord in a manner consistent with the immediately preceding sentence.

(f) Measurement. The total rentable area of the Premises set forth in Article 1 has been determined by (i) measuring the usable area of the same based on the proposed location of the demising walls of the Premises as shown on **Exhibit B** attached hereto, using the BOMA International Standard Method of Measurement for Office Buildings (ANSI/BOMA Z65.1-2010) (the "**Measurement Standard**"), as modified by Landlord for use in connection with lab buildings. To the extent to which Landlord, in the exercise of its reserved rights pursuant to Section 2.01(e), constructs or installs any chase, shaft or similar enclosures within the Premises for the exclusive use of other tenants, or grants to Tenant exclusive rights to use any portion of the Building situated outside the boundaries of the Premises, such areas shall be excluded or included in the Premises (as the case may be) and Landlord shall cause its architect to measure such areas in accordance with the Measurement Standard and either add them or subtract them to or from the total rentable area of the Premises as otherwise determined in accordance with the provisions of this Lease. If the rentable area changes on account of the provisions of this Section 2.01(f), Landlord and Tenant shall then enter into an amendment to this Lease confirming the rentable area, as modified, as well as any changes to the boundaries of the Premises, and proportional changes in the Base Rent and any other charges or rights under this Lease that are based upon the rentable square footage in question.

## **2.02. Common Areas; Parking.**

(a) Common Areas. Included within Tenant's appurtenant right to use the Common Areas as described in Section 2.01(c) is the right to use, in common with Landlord and all others entitled to the use thereof, the non-structural General Common Elements and Limited Common Elements (as defined in the Condominium Documents) allocated to the Unit or otherwise available to Landlord as owner of the Unit pursuant to the Condominium Documents (excluding Limited Common Elements designated by Landlord for the exclusive use by another tenant of the Unit and Limited Common Elements comprising portions of the exterior shell of the Building) (herein referred to as "**Condominium Common Areas**") for their intended use and in accordance with any applicable terms and provisions of the Condominium Documents and this Lease. Landlord shall not be liable for any inconvenience or interruption of business or other consequences resulting from the making of repairs, replacements, improvements, alterations or additions or from the doing of any other work, by or at the direction of Landlord, the Declarant and its successors, assigns and transferees, other Primary Unit Owners, or the Primary Board, to or upon any Common Areas, or from delay or failure to perform such maintenance, snow removal or other work with respect to any Common Areas. Tenant acknowledges and agrees that the size, location and nature of any Condominium Common Area may be changed from time to time in accordance with the Condominium Documents.

(b) Parking Areas. All parking areas, access roads and facilities which may be furnished in the Development, as it shall be constituted from time to time, including employee parking areas, truck way or ways, driveways, loading docks and areas, delivery passages, package pickup stations, pedestrian sidewalks, malls, courts and ramps, landscaped and planting areas, retaining walls, stairways, bus stops, first-aid stations, lighting facilities, comfort stations, and other areas and improvements which may be provided by the Primary Board for the general use in common of tenants, their officers, agents, employees, invitees and customers, shall at all times be subject to the exclusive control and management of the Primary Board. The Landlord, Declarant (and its successors, assigns and transferees) and the Primary Board shall have the right from time to time, and at no cost to Tenant, to change the areas, locations, length of stay and arrangement of parking areas and all other Common Areas referred to in this Section 2.02; to construct

surface or elevated parking areas and facilities; to establish and from time to time change the level of parking surfaces; to impose parking fees and charges for any and all parking facilities and parking spaces in the Development or elsewhere, and enforce such parking charges (by operation of meters or otherwise); to limit the use of certain parking areas to the exclusive use of certain tenants or occupants of the Development; to close all or any portion of said areas or facilities to such extent as may, in the opinion of Landlord's counsel, be legally sufficient to prevent a dedication thereof or the accrual of any rights to any person or to the public therein; to close temporarily any or all portions of the parking areas or facilities; to discourage non-customer retail parking; to establish bicycle parking and storage areas and facilities and electric vehicle charging stations; and to do and perform such other acts in and to said areas and improvements as, in the use of good business judgment, Landlord or the Primary Board shall determine to be advisable with a view to the improvements of the convenience and use thereof by tenants, their officers, agents, employees, and customers. In the event that, in connection with any of the activities described in the immediately preceding sentence, Tenant's right to use any or all of the parking spaces described in Section 2.02(c) below is interrupted or suspended by such activity for more than five (5) consecutive Business Days, Landlord shall make commercially reasonable efforts to provide alternative parking to Tenant. Tenant shall, if requested by Landlord, furnish Landlord with State automobile license or registration numbers assigned to Tenant's car or cars and cars of its employees within five (5) Business Days after Tenant's receipt of Landlord's written demand. Landlord may implement parking passes or other means of identifying authorized users of Tenant's parking rights.

(c) Specific Parking Rights Granted to Tenant.

(i) During the Term, Tenant, its employees, guests and visitors shall have the appurtenant right to use, at no additional charge, up to twenty (20) (1 space per 1,000 rentable square feet in the Premises) parking spaces located in the lower level of the garage at 50 Forge Road and 100 Forge Road (which lower level is shown on Exhibit A-2 attached hereto) between the hours of 8:00 A.M. and 5:00 P.M. on Business Days (at other times/days such parking spaces shall be made available to the general public). No specific parking spaces shall be designated, identified or reserved for Tenant's exclusive use.

(ii) In addition, during the Term, Tenant, its employees, guests and visitors shall have the appurtenant right to use, at no additional charge, up to ten (10) (0.5 space per 1,000 rentable square feet in the Premises) parking spaces located in the lower level of the garage at 50 Forge Road and 100 Forge Road, between the hours of 8:00 A.M. and 5:00 P.M. on Business Days (at other times/days such parking spaces shall be made available to the general public), which spaces shall be provided by means of a parking stacker or other mechanical parking equipment. No specific parking spaces shall be designated, identified or reserved for Tenant's exclusive use.

(iii) In addition, Tenant, its employees, guests and visitors shall have the right to use during the Term up to ten (10) (0.5 space per 1,000 rentable square feet in the Premises) undesignated parking spaces in parking structures within the Development in accordance with the provisions of this subsection (c)(iii). Use of these parking spaces shall be on a non-exclusive, non-reserved basis.

The parking rights set forth above shall be at no additional cost to Tenant or any of Tenant's employees, guests or visitors. Tenant shall cause all employees, guests and visitors to not park in the portion of the Home Depot parking lot marked "No Building G Employee Parking Area" on the site plan attached hereto as Exhibit A-2. Tenant's employees shall be prohibited from parking in any surface parking areas in the Development and Tenant shall enforce this prohibition against its employees. Tenant's employees shall be permitted to park in the parking garage located in the Building and on the lower level of the parking garage located within Building F and, but only to

the extent specifically permitted by Landlord in writing, also either elsewhere within the parking garage located within Building F or in the parking garage located within Building B. Tenant's guests and visitors will be required to park either in the garage facilities identified in the preceding sentence or in the area identified on the site plan attached hereto as **Exhibit A-2**. Tenant's guests and visitors shall be prohibited from parking in any other surface parking areas in the Development and Tenant shall enforce this prohibition.

In the event that at any time more than sixty percent (60%) of the rentable area of the Premises is used for a use other than Life Science Use (a "**Non-Life Science Use**", which term shall include all support offices and conference rooms otherwise included in the definition of "Life Science Use" set forth above), without hereby implying that such use would be permitted under this Lease, Tenant's parking rights with respect to such "Non-Life Science Use" shall be limited to one (1) parking space per 1,000 square feet of space in the Premises used for such "Non-Life Science Use" in excess of sixty percent (60%) of the rentable area of the Premises.

Landlord shall have the right to enforce the aforesaid parking limitations by any lawful means.

(iv) All parking spaces shall be used only by Tenant and Tenant's employees and visitors for the parking of passenger vehicles only. At no time may Tenant, its employees and visitors use more parking spaces in the Development than the aggregate number set forth in Sections 2.2(c)(i) – (iii).

(v) The provisions of this Lease, including the Rules and Regulations, shall apply to all parking facilities and parking spaces situated within the Development and Tenant's use thereof. Landlord shall have the right to temporarily close portions of surface parking lots and parking facilities time to time for maintenance, repair or improvement, as necessary; provided that reasonable alternative parking is made available to Tenant to the extent of such closure.

(vi) Tenant's rights under this Section may not be assigned, Subleased or otherwise transferred except in connection with a Transfer effected in accordance with the provisions of Article 12 below. Neither Landlord nor any operator of the parking facilities shall be responsible for any loss or damage due to fire or theft or otherwise to any automobile parked in any parking lot or parking facilities within the Development or to any personal property therein.

(d) Access to Common Areas. Landlord covenants that throughout the Term of this Lease, Landlord shall enforce the applicable provisions of the Condominium Documents and Title Matters to provide Tenant with non-exclusive access to and use of the Common Areas of the Development provided pursuant to the Condominium Documents and Title Matters.

**2.03. Changes and Additions to Development.** Landlord, for itself and on behalf of the Primary Board and the Declarant, and the Declarant's successors, assigns and transferees, hereby reserves the right at any time and from time to time to: (a) construct other buildings or improvements in the Development, make alterations thereof or additions thereto, build additional stories or levels on any such building (including the Building) or buildings adjoining same; (b) make changes or revisions in the Development and Common Areas, and convey portions of the Development, Primary Units, and Common Areas to others for any reason including for the purpose of constructing thereon other buildings or improvements, including additions thereto and alterations thereof notwithstanding that such activities to be undertaken may necessitate the alteration or rearrangement of all or portions of the Common Areas; and (c) exercise Development Rights and Special Declarant Rights (as defined in the Condominium Documents); provided that none of the foregoing shall materially interfere with the rights granted to Tenant hereunder (including the use of the Premises for the Permitted Use) or shall preclude access to the Premises from a public road or reduce the number of parking spaces below that which is required by Applicable Law (taking into consideration all permits, approvals and other relief applicable to the Development).

### ARTICLE 3: LEASE TERM

**3.01. Lease Term; Construction.** The Initial Term of this Lease is set forth in Article 1. The Base Building and the Premises shall be constructed as provided in the Work Letter (the “**Work Letter**”) attached hereto as Exhibit C.

**3.02. Hold Over.** If Tenant (or anyone claiming by, through or under Tenant) shall remain in occupancy of the Premises or any part thereof after the expiration or early termination of the Term without a written agreement therefor executed and delivered by Landlord, then without limiting Landlord’s other rights and remedies the person or entity remaining in possession shall be deemed a tenant at sufferance, and Tenant shall thereafter pay a monthly use and occupancy charge (pro-rated for such portion of any partial month as Tenant (or anyone claiming by, through or under Tenant) shall remain in possession) at a rate equal to (i) one hundred fifty (150%) percent of the monthly amount payable as Base Rent for the 12-month period immediately prior to such expiration or termination, plus (ii) one hundred (100%) percent of all Additional Rent also payable as provided in this Lease. No acceptance by Landlord of any payment by Tenant pursuant to this Section shall constitute Tenant (or anyone claiming by, through or under Tenant) as a tenant at will, but Tenant or such other person or entity shall remain a tenant at sufferance subject to all of the provisions of this Lease. If Landlord desires to regain possession of the Premises at any time Tenant (or anyone claiming by, through or under Tenant) is holding over, Landlord may, at its option, forthwith re-enter and take possession of the Premises or any part thereof by any lawful means. In any case, and notwithstanding the provisions of Section 16.10(b) to the contrary, Tenant shall be liable to Landlord for all claims, liabilities, damages (including indirect and consequential damages), losses or costs (including reasonable attorneys’ fees and costs) resulting from any failure by Tenant (or anyone claiming by, through or under Tenant) to vacate the Premises or any portion thereof when required hereunder, and shall hold Landlord, its agents and employees, harmless and defend and indemnify Landlord, its agents and employees, from and against any and all claims, liabilities, damages (including indirect and consequential damages), losses or costs (including reasonable attorneys’ fees and costs) which Landlord may pay, incur or suffer on account of any such hold-over in the Premises after the expiration or earlier termination of the Term.

#### **3.03. Right to Extend.**

(a) Extension Term. Provided that, as of both the time Tenant gives the Extension Notice (as defined below) and the first day of the Extension Term, (i) Tenant is not in default hereunder beyond all applicable notice and grace periods (if any), and (ii) the Tenant named in Article 1 above (or a Related Party Transferee) has not assigned, Subleased, transferred or otherwise permitted the occupancy by third parties of more than twenty-five percent (25%) of the Premises, then Tenant may extend the Term of this Lease for the Extension Term stated in Article 1 by giving unconditional written notice (an “**Extension Notice**”) to Landlord at least fifteen (15) months but not more than twenty-one (21) months before the end of the Initial Term, time being of the essence. The Extension Notice shall be sufficient to extend the Term for the Extension Term, subject to all of the terms of this Lease except for the change in Base Rent as set forth below, and no additional writing or further action by the parties shall be required for such purpose (but upon the request of either party, the parties shall promptly execute and deliver an amendment to this Lease reflecting such extension of the Term). If Tenant fails to give the Extension Notice in strict accordance with the provisions of this Section 3.03(a), Tenant shall be deemed to have waived all rights to extend the Term of this Lease. All references in this Lease to the “Term” shall mean the Initial Term as it may be so extended by the Extension Term.

(b) **Extension Term Base Rent.** Base Rent for the Extension Term(s) shall be the Fair Market Rent of the Premises (as defined below), but in no event shall the annual Base Rent as so determined be less than the amount of Base Rent payable by Tenant hereunder during the first Lease Year of the Initial Term. Fair market rent of the Premises (the “**Fair Market Rent**”) for the Extension Term shall be based upon leases or agreements to lease then being negotiated or executed with respect to comparable space located in the Development, or if no such leases or agreements to lease are then being negotiated or executed with respect to comparable space in the Development, the Fair Market Rent shall be determined by reference to leases or agreements to lease then being negotiated or executed with respect to comparable first-class laboratory/R&D space in in comparable first-class lab buildings with walkable retail amenities in Watertown and other comparable inner suburban and suburban lab/R&D markets (excluding Kendall Square, but including Allston/Brighton and West Cambridge). In determining Fair Market Rent, all relevant factors shall be taken into account, including size, location and age and condition of premises, lease term (including renewal options), tenant’s obligations with respect to operating expenses and taxes, tenant improvement allowances, other inducements then being offered by landlords, condition of building, and services and amenities provided by the landlord. Fair Market Rent shall include provisions for increases or other adjustments during the Extension Term for which such determination is being made.

(c) **Determination of Fair Market Rent.** Fair Market Rent shall be determined as follows: Landlord shall give Tenant written notice (“**Landlord’s Fair Market Rent Notice**”) of Landlord’s determination of Fair Market Rent for the Extension Term within thirty (30) days of Tenant’s giving to Landlord the Tenant’s Extension Notice. Tenant shall thereafter notify Landlord within thirty (30) days of Landlord’s giving to Tenant Landlord’s Fair Market Rent Notice of its agreement with or objection to Landlord’s determination of the Fair Market Rent, whereupon in the case of Tenant’s objection, Fair Market Rent shall be determined by arbitration conducted in the manner set forth below. If Tenant does not notify Landlord within such thirty (30) day period of Tenant’s agreement with or objection to Landlord’s determination of the Fair Market Rent, then the Fair Market Rent for the Extension Term shall be deemed to be Landlord’s determination of the Fair Market Rent as set forth in Landlord’s Fair Market Rent Notice to Tenant. If Tenant does notify Landlord within such thirty (30) day period of Tenant’s objection to Landlord’s determination of the Fair Market Rent, then within ten (10) days of Tenant’s giving such notice of objection to Landlord, each of Tenant and Landlord shall choose an MAI real estate appraiser or commercial real estate broker with at least ten (10) years of professional experience dealing with properties similar to the Development in the vicinity of the Development (each a “**Real Estate Professional**”) and notify the other party of the person so selected. The Real Estate Professionals so selected shall each determine and promptly report (in no event later than the thirtieth (30<sup>th</sup>) day following the giving of the notice of appointment of the second Real Estate Professional) to both Landlord and Tenant in writing his or her determination of the Fair Market Rent. If the higher of the Fair Market Rents reported by the two Real Estate Professionals is no more than ten (10%) percent more than the lower rate, then the Fair Market Rent will be an average of such amounts. However, if the higher amount is more than one hundred ten (110%) percent of the lower amount, then within ten (10) days after receipt of both reports, Landlord and Tenant will jointly appoint a third Real Estate Professional meeting the aforesaid criteria, and the third Real Estate Professional will determine the Fair Market Rent by selecting either Landlord’s Fair Market Rent determination or Tenant’s Fair Market Rent determination according to whichever of the two valuations as set forth in the reports from Landlord’s Real Estate Professional or Tenant’s Real Estate Professional, respectively, is closer to the actual Fair Market Rent in the opinion of such third Real Estate Professional. The third Real Estate Professional shall have no discretion other than to select one of the determinations of Fair Market Rent made by the first two Real Estate Professionals as aforesaid. Landlord and Tenant shall each pay the fees and expenses of the Real Estate Professional that it appoints, and shall share equally the fees and expenses of the third Real Estate Professional.



(d) **Rent Continuation.** For any part of the Extension Term for which the amount of Base Rent has not finally been determined, Tenant shall make payment on account of Base Rent at the rate last paid under this Lease, and the parties shall adjust for any overpayments or underpayments upon the final determination of Fair Market Rent. The failure by the parties to complete the processes contemplated under this Section 3.03 prior to the commencement of the Extension Term shall not affect the continuation of the Term or the parties' obligation to make any adjustments for any overpayments or underpayments for the Base Rent due for the applicable period promptly after the determination thereof is made.

#### ARTICLE 4: RENT

**4.01. Base Rent.** Commencing as of the Rent Commencement Date and continuing thereafter on the first day of each month during the Term, Tenant shall pay Landlord the monthly installment of Base Rent, in advance, without notice or demand.

##### **4.02. Additional Rent.**

(a) **General.** "**Rent**" means, collectively, Base Rent and all other amounts payable by Tenant under this Lease other than Base Rent, including Tenant's Percentage Share of Taxes and Tenant's Percentage Share of Operating Expenses, regardless of whether or not such amount is expressly described as "Additional Rent" in this Lease (collectively, "**Additional Rent**"). Landlord shall reasonably estimate in advance (i) all Taxes under Article 5 and (ii) all Operating Expenses under Article 7 (the items in clauses (i) and (ii), collectively, being "**Operating Costs**") and Tenant shall pay one-twelfth (1/12<sup>th</sup>) of Tenant's Percentage Share of such reasonably estimated Operating Costs monthly in advance, commencing on the Rent Commencement Date and continuing thereafter on the first day of each calendar month (or portion thereof) included within the Term. Landlord may reasonably adjust its estimates of Operating Costs at any time (but not more than twice per year) based upon its experience and reasonable anticipation of costs. Such adjustments shall be effective as of the next Rent payment date occurring at least fifteen (15) days after written notice to Tenant. Within one hundred eighty (180) days after the end of each calendar year (or portion thereof) included within the Term, Landlord shall give Tenant a reasonably detailed statement (an "**Annual Operating Statement**") of the Operating Costs paid or incurred by Landlord during the preceding calendar year (pro-rated for partial calendar years included within the Term) and Tenant's Percentage Share of such expenses; *provided, however*, that Landlord may bill Tenant for any items omitted or underbilled with respect to the calendar year in question for a period of time not to exceed one (1) year from the last day of such calendar year. Within thirty (30) days after Landlord's delivery of an Annual Operating Statement to Tenant, Tenant shall pay Landlord any underpayment, or Landlord shall credit Tenant with any overpayment (which credit shall be applied to any Rent due under this Lease next coming due after the delivery of the Annual Operating Statement (or if the Term has ended, Landlord shall pay Tenant the amount of any overpayment as provided below)), of Tenant's Percentage Share of such Operating Costs.

If Tenant wishes to dispute the determination of the Operating Costs charged to Tenant under this Lease, Tenant may do so provided (i) Tenant shall give Landlord written notice of such dispute within one hundred twenty (120) days after its receipt of the Annual Operating Statement being disputed and (ii) Tenant shall pay any overpayment due based on the Annual Operating Statement as provided in the foregoing paragraph, pending resolution of the dispute. If Landlord provides a revised Annual Operating Statement within the one (1) year period described in the preceding grammatical paragraph in response to a previously omitted or underbilled item of Operating Costs, Tenant shall have the same one hundred twenty (120) day period from its receipt of such revised Annual Operating Statement within which to give Landlord written notice that it disputes one or more of the revised items contained in such revised Annual Operating Statement (which shall be the only items then subject to dispute by Tenant). Promptly after the giving of such notice in either such case, Landlord shall allow Tenant's representatives to examine and audit in Landlord's offices (or the office of its managing agent) Landlord's books and records with respect to the subject matter of the dispute, which review or audit shall be completed within ninety (90) days after Tenant

gave such notice of dispute. Tenant agrees that the party selected by Tenant to perform such review or audit shall be compensated on the basis of hourly fees and not on a contingency or percentage basis. Tenant agrees to keep the results of any such review or audit conducted by Tenant confidential except for disclosures to its employees, attorneys, consultants, accountants and owners and except to the extent required to enforce Tenant's rights hereunder. The cost of such audit shall be borne by Tenant; provided, however, in the event it is finally determined (by mutual agreement or other resolution of such dispute) that Tenant was overcharged by more than five percent (5%) for the immediately preceding calendar year, then, in such event, Landlord shall pay for Tenant's reasonable out-of-pocket cost for the audit. If it is finally determined (by mutual agreement or other resolution of such dispute) that Landlord's determination of any of the Operating Cost is (i) overstated, or (ii) understated, then in the case of (i) Landlord shall credit the difference against monthly installments of Rent next thereafter coming due (or refund the difference if the Term has ended and Tenant has no further obligation to Landlord), or in the case of (ii) Tenant shall pay to Landlord the amount of such excess. Landlord's obligation under this paragraph shall survive the expiration of the Term or earlier termination of this Lease.

If the Term expires or the Lease is terminated as of a date other than the last day of a calendar year, Tenant's payment of Additional Rent pursuant to this Section for such partial calendar year shall be based on Landlord's good faith estimate of the items otherwise includable in Operating Costs. Tenant's payment of Additional Rent shall be made on or before ten (10) Business Days after Landlord delivers such estimate to Tenant, with an appropriate payment or refund to be made upon Tenant's later receipt of Landlord's Annual Operating Statement for such calendar year. This Section shall survive the expiration or earlier termination of the Term.

This Lease requires Tenant to pay directly to suppliers, vendors, carriers, contractors, and other parties certain utility costs, personal property taxes, maintenance and repair costs and other expenses. If Tenant fails to make any such payments when due and Landlord thereafter receives notice of such failure on the part of Tenant, Landlord shall have the right (but no obligation) to do so on its behalf, and if Landlord so pays any of these amounts in accordance with this Lease, Tenant shall reimburse such costs in full, together with interest thereon at the Default Rate, to Landlord, as Additional Rent, within ten (10) Business Days of Landlord's written demand.

(b) If, during any period for which Landlord's Operating Costs are being computed, less than ninety-five (95%) percent of the rentable area of the Unit was leased and occupied by tenants, Operating Costs that are allocable to the entire Unit or the portion thereof in question and which vary by level of occupancy shall be reasonably estimated and extrapolated by Landlord to determine the Operating Costs that would have been incurred if the Unit or such portion in question were ninety-five (95%) leased and occupied by tenants for such year and such services were being supplied to all tenants, and such estimated and extrapolated amount shall be deemed to be the Operating Costs for such period; *provided, however*, that Landlord shall not collect from Tenant and other tenants in the Unit in the aggregate more than one hundred (100%) percent of Operating Costs actually incurred by Landlord.

(c) Unless otherwise provided in this Lease, payments of Additional Rent other than recurring payments such as monthly payments of estimated Operating Costs, shall be due and payable within thirty (30) days after invoicing by Landlord.

**4.03. Late Charge.** Tenant acknowledges that if it pays Rent late, Landlord will incur unanticipated costs which will be extremely difficult to ascertain exactly. Such costs include processing and accounting charges, and late charges that may be imposed on Landlord under a mortgage on the Unit, the Building or the Development. Accordingly, if Landlord does not receive any such payment within five (5) days following its due date, Tenant shall pay Landlord a late charge equal to five (5%) percent of the overdue amount as an administrative charge. The parties agree that this late charge represents a fair and reasonable estimate of the costs Landlord shall incur by reason of Tenant's payment default. Payment of the late charge shall not cure Tenant's payment default or prevent Landlord from exercising any other rights and remedies.

**4.04. Interest.** Any late Rent payment shall bear interest from the date due (without regard to the 5-day grace period provided in [Section 4.03](#)) until paid at a rate equal to twelve percent (12%) per annum (the “**Default Rate**”), except to the extent such interest would cause the total interest to be in excess of that legally permitted (and then interest will be at the maximum rate legally permitted). The “**Prime Rate**” shall mean the prime lending rate per annum published in [The Wall Street Journal](#) from time to time, and the Default Rate shall be adjusted effective upon each change in the Prime Rate. Payment of interest shall not cure Tenant’s payment default or prevent Landlord from exercising any other rights and remedies.

**4.05. Method of Payment.** Tenant shall make a pro rata payment of Base Rent and Additional Rent for any period of less than a month at the beginning or end of the Term. All payments of Base Rent, Additional Rent and other sums due shall be paid in current U.S. exchange by electronic transfer to an account designated from time to time by Landlord, in each case without demand, abatement, set-off or other deduction.

Without limiting the foregoing, except as expressly otherwise set forth in this Lease, Tenant’s obligation so to pay Rent shall be absolute, unconditional, and independent and shall not be discharged or otherwise affected by any Legal Requirement now or hereafter applicable to the Premises, or any other restriction on Tenant’s use, or any Force Majeure, casualty or taking, or any failure by Landlord to perform, or any other occurrence.

It is intended that Base Rent payable hereunder shall be a net return to Landlord throughout the Term, free of expense, charge, offset, diminution or other deduction whatsoever on account of the Premises (excepting Landlord’s financing expenses, federal and state income taxes of general application, and those expenses that this Lease expressly makes the responsibility of Landlord), and all provisions hereof shall be construed in terms of such intent.

## ARTICLE 5: TAXES

**5.01. Definition of “Taxes”.** “Taxes” shall mean all taxes, assessments, betterments, excises, user fees imposed by governmental authorities, and all other governmental charges and fees of any kind or nature, or impositions or agreed payments in lieu thereof, or voluntary payments made in connection with the provision of governmental services or improvements of benefit to the Building, the Unit or the Development (including any so-called linkage, impact or voluntary betterment payments), assessed or imposed against the Land, the Building or any other buildings or improvements in the Development, and any Units, General Common Elements or Limited Common Elements (including any personal property taxes levied on personal property or fixtures or equipment (other than that owned by tenants) used in connection therewith). Furthermore, notwithstanding anything to the contrary herein, Taxes shall exclude (a) any interest, fines and/or penalties for late payments to the extent relating to a period in which Tenant was not in default (beyond any applicable notice and cure periods) of its obligations to pay Base Rent, Tenant’s Percentage Share of Operating Costs or other payments under this Lease, and (b) federal, state or local income or profit taxes, franchise, rental, capital, inheritance, estate, conveyance, transfer, gift, or corporate excise taxes or levies. The amount of any special taxes, special assessments, and agreed or governmentally imposed “in lieu of tax” or similar charges, shall be included in Taxes for any year but shall be limited to the amount of the installment (plus any interest, other than penalty interest, payable thereon) of such special tax, special assessment or such charge required to be paid during or with respect to the year in question. Betterments and assessments, whether or not paid in installments, shall be included in Taxes in any tax year as if the betterment or assessment were paid in installments over the longest period permitted by law, together with the interest thereon charged by the assessing authority for the payment of such betterment or assessment in installments.

Notwithstanding the foregoing, if during the Term the present system of ad valorem taxation of property shall be changed so that, in lieu of or in addition to the whole or any part of such ad valorem tax there shall be assessed, levied or imposed on the Premises, the Unit, the Building or the Development, or on Landlord, any kind or nature of federal, state, county, municipal or other governmental capital levy, income, sales, franchise, excise or similar tax, assessment, charge or fee (as distinct from the federal and state income tax in effect on the Date of Lease) measured by or based in whole or in part upon valuation of the Premises, the Unit, the Building or the Development, or mortgage valuation, rents, services or any other incidents, benefits or measures of real property or real property operations, then any and all of such taxes, assessments, levies, charges and fees shall be included within the term "Taxes", but only to the extent that the same would be payable if the Development were the only property of Landlord. Taxes shall also include reasonable out-of-pocket expenses, including reasonable fees of attorneys, appraisers and other consultants, incurred in connection with any efforts to obtain abatements or reduction of Taxes for any year wholly or partially included in the Term, whether or not successful and whether or not such efforts involved filing of actual abatement applications or initiation of formal proceedings.

#### **5.02. Method of Payment of Taxes.**

(a) Commencing as of the Rent Commencement Date and continuing thereafter throughout the Term of this Lease, Tenant covenants and agrees to pay to Landlord as Additional Rent, for each Tax Year, or ratable portion thereof, included in the Term, Tenant's Percentage Share of all Taxes payable with respect to the Unit and any applicable Limited Common Elements (as defined in the Condominium Documents) assigned or allocated to the Unit pursuant to the Condominium Documents. As used in this Lease:

"**Tenant's Percentage Share**" shall mean the percentage computed by Landlord from time to time by dividing the gross rentable area of the Premises by the total gross rentable area of the Unit, as both are reasonably computed by Landlord, and in the event that either the gross rentable area of the Premises or the total gross rentable area of the Unit is changed, Tenant's Percentage Share will be appropriately adjusted and, as to the Tax Year in which such change occurs, Tenant's Percentage Share shall be determined on the basis of the number of days during such Tax Year at each such percentage. In the event Tenant leases all of the Unit the Tenant's Percentage Share shall be one hundred percent (100%). The initial determination of Tenant's Percentage Share is set forth in Article 1 hereof.

"**Tax Year**" means each twelve (12) month period (deemed, for the purposes of this Section, to have 365 days) during the Term established as the real estate Tax Year by the taxing authorities having lawful jurisdiction over the Development.

If Landlord receives a refund of any such Taxes, Landlord shall pay to Tenant Tenant's Percentage Share of the refund after deducting Landlord's reasonable out-of-pocket costs and expenses incurred in obtaining the refund, to the extent such costs and expenses were not previously included in, and actually paid as, Taxes pursuant to this Section 5.02. Tenant shall make estimated payments on account of Taxes in monthly installments on the first day of each month, in amounts estimated from time to time by Landlord pursuant to Section 4.02(a).

(b) In addition, in the event that the taxing authority now or hereafter separately assesses parking spaces (or Landlord is reasonably able to determine the portion of an assessment made against a unit that is attributable to the parking made available to such unit) or any land or improvements used for parking, including surface parking and parking situated within a building or other structure (the "**Development Parking**"), and regardless of whether such Development Parking constitutes a

condominium unit or General Common Element (but excluding any Development Parking that is now or hereafter designated under the Condominium Documents as a Limited Common Element or otherwise for the exclusive use of a particular unit or units), then Tenant shall also pay its pro rata share of such Taxes (hereinafter referred to as "**Separately Assessed Parking Taxes**"). The Separately Assessed Parking Taxes shall not include Taxes assessed on or attributable to (as determined by Landlord) any Development Parking which is a Limited Common Element or otherwise designated for the exclusive use of a particular unit or units. Tenant's pro rata share of Separately Assessed Parking Taxes shall be determined by multiplying the Separately Assessed Parking Taxes by a fraction, the numerator of which is the total number of parking spaces allocated to Tenant pursuant to Section 2.02(c) and the denominator of which is the total number of parking spaces in the Development used for office, laboratory/R&D, retail, restaurant, residential, hotel, service or other uses typically found in mixed-use developments, but only to the extent such parking spaces are not separately assessed to other units.

(c) Notwithstanding the foregoing or anything contained in this Lease to the contrary, in the event that the Town of Watertown and any other applicable taxing authorities do not initially separately assess the Unit as a condominium unit for taxation purposes, then, until such time as the Unit is so assessed as a separate taxable condominium unit, the term "**Taxes**" shall mean all real estate taxes and other ad valorem taxes (including betterment and special assessments) assessed against and payable with respect to the Development (including all land, buildings, parking and improvements related thereto) and Tenant shall pay its pro rata share thereof (determined by multiplying such Taxes by a fraction, the numerator of which is the total gross rentable floor area of the Premises, and the denominator of which is the total gross rentable floor area of all non-residential buildings located in the Development, or by such other reasonable allocation that forms the basis of the valuation prepared by the taxing authority). In addition, in the event that at any time the Town of Watertown separately assesses any of the Condominium Common Areas as a taxable parcel, "Taxes" shall include all real estate taxes and other ad valorem taxes (including betterment and special assessments) assessed against and payable with respect thereto (including all land, buildings, parking and improvements related thereto) and Tenant shall pay its pro rata share thereof, calculated in the manner provided in the immediately preceding sentence.

**5.03. Personal Property Taxes.** Tenant shall pay directly all taxes (if any) charged against Tenant's Property (as defined in Section 10.06). Tenant shall use commercially reasonable efforts to have Tenant's Property taxed separately from the Unit. Landlord shall notify Tenant if any of Tenant's Property is taxed with the Unit, and Tenant shall pay such taxes to Landlord within thirty (30) days of such written notice.

## **ARTICLE 6: BUILDING SERVICES AND SPECIAL BUILDING FACILITIES**

### **6.01. Utility Services.**

(a) Tenant shall make all arrangements for, and shall provide and pay all charges and deposits required by the provider for, water, sewer, gas, boiler water, electricity, telephone and any other utilities or services used or consumed on the Premises (collectively, "**Utility Services**"), whether called use charge, tax assessment, fee, or otherwise, as the same become due. Tenant shall reimburse Landlord, as Additional Rent, for the cost of installation of any additional metering of the Premises (which was not installed as part of the Base Building Work) for the purpose of measuring Tenant's consumption of Utility Services, as well as the cost of installing (at any time prior to or during the Term) and maintaining any "check" or "sub" meters, within thirty (30) days after invoicing by Landlord. In addition, if Landlord shall install, at Tenant's request, meters for any Utility Services requested by Tenant, Tenant shall reimburse Landlord, as Additional Rent, for the reasonable cost of installing such meters (and thereafter, for maintaining the same) within thirty (30) days after invoicing by Landlord.

(b) As part of the Base Building Work, Landlord will (i) install BTU meters to measure the aggregate Common Area usage in the Building and Tenant's consumption of hot water, chilled water and condenser water. In accordance with the provisions of the Work Letter attached hereto as **Exhibit C**, Tenant shall, at its own cost and expense, install BTU meters on all Building hot water, chilled water and condenser water service to the Premises to measure Tenant's usage thereof, and any meters installed as part of such work shall be compatible with the Unit equipment and the Unit Building Management System (BMS); (ii) provide space for a Tenant meter on the utility gas manifold so that Tenant can install (at its sole cost and expense) any gas service necessary to service the exclusive needs of Tenant's Premises; and (iii) provide a connection to the Building potable and non-potable water services to the Premises. Tenant shall provide and install water meters at this connection with remote readers to record Tenant's use of potable and non-potable domestic water within the Premises. Tenant shall install, as part of its electrical service switchgear, a CT cabinet with an electrical usage meter as required by the Utility Service Provider. If the Utility Service Provider will not allow individual direct metering for Tenant's service, this meter shall be used to measure Tenant's direct usage of electricity within the Premises, (including the electricity consumed in providing HVAC service to the Premises), for which Tenant shall reimburse Landlord at the direct billing rates charged to Landlord by the Utility Service Provider. Landlord shall bill Tenant monthly for such electrical consumption and water consumption as a recurring charge at no mark-up, and Tenant shall pay each such invoice, as Additional Rent, within thirty (30) days after receipt of an invoice therefor. All costs, charges and expenses associated with the commencement of the provision by a particular Utility Service Provider to Tenant or to the Premises at the request of Tenant (e.g., installation charges, service deposits) shall be the sole responsibility of Tenant.

(c) Tenant shall timely pay all costs and expenses associated with any directly and separately metered utilities provided exclusively to the Premises directly to the applicable service provider. Tenant shall pay all costs and expenses associated with utility charges that are based on sub-metering or check metering directly to Landlord, without mark-up by Landlord on account of Landlord's administration of such charges, within thirty (30) days of invoice therefor by Landlord. With respect to any Utility Services that are not either separately metered or measured by a check meter or submeter (including HVAC service provided to any portion of the Premises by means of the Building HVAC system rather than HVAC units serving solely the Premises), Tenant shall pay the cost of the same as part of Operating Costs payable hereunder. Tenant may, no more than once per calendar year, conduct an engineering survey at its sole cost and expense to determine whether the submeters and/or check meters are accurately measuring the particular services to be measured thereby and, if Tenant discovers any metering inaccuracies as a result of such survey and such inaccuracies result in an error in the amount billed to Tenant, Landlord shall promptly refund the overpayment within ten (10) Business Days after receipt of notice from Tenant of such inaccuracy. If requested by Landlord, Tenant and the persons conducting the engineering survey for Tenant shall enter into a reasonable confidentiality agreement prior to inspecting such meters, which shall permit Tenant to disclose the results of such survey to the extent required to enforce its rights hereunder. If the survey shows any errors resulting in any underpayment for such services, Tenant shall reimburse Landlord for Tenant's share of such underpayment, as Additional Rent, within ten (10) Business Days of demand. In no event shall Tenant engage any person in connection with such engineering survey whose fees or costs are payable, in whole or part or directly or indirectly, in a contingent manner or by means of any commission depending on the survey outcome. Any dispute regarding amounts due, or accuracy of the meters, under this paragraph shall be resolved in accordance with Section 16.17 of this Lease at the request of Landlord or Tenant, which request shall be made with respect to disputes regarding amounts due, no later than one hundred eighty (180) days after Tenant receives Landlord's Annual Operating Statement for the fiscal year in question (any bill not disputed within such one hundred eighty (180) day period shall be deemed final and conclusive). Landlord shall not be liable for any interruption or failure in the supply of any utilities or Utility Services.

(d) To the maximum extent permitted by law, Landlord shall have the right at any time and from time to time during the Term to contract for or purchase one or more Utility Services from any company or third party providing Utility Services (“**Utility Service Provider**”) to the Building, provided that the rates charged by such Utility Service Provider are competitive with the current market rates. Subject to Section 9.06, Tenant agrees reasonably to cooperate with Landlord and such Utility Service Providers and at all times as reasonably necessary, and on reasonable advance notice (except in the event of emergency), shall allow Landlord and the Utility Service Providers reasonable access to any utility lines, equipment, feeders, risers, ducts, shafts, fixtures, wiring and any other such machinery or personal property within the Premises and associated with the delivery of Utility Services.

(e) Except for the Initial Tenant Work and the equipment and appliances being installed in connection therewith, Tenant agrees that it will not make any material alteration or material addition to the electrical equipment and/or appliances in the Premises which would require increased electrical service to the Premises or modifications to the structure of the Unit or the Building, without the prior written consent of Landlord in each instance, which consent will not be unreasonably withheld, conditioned or delayed, and using contractor(s) reasonably approved by Landlord, and will promptly advise Landlord of any other alteration or addition to such electrical equipment and/or appliances (as to which Landlord’s prior written consent shall not be required). Landlord agrees to respond to any request for approval made by Tenant pursuant to this subsection (c) within ten (10) Business Days after its receipt of such request.

#### **6.02. Building Services and Building Systems.**

(a) In addition to the services described in Section 6.01, Landlord shall provide the following services to common areas within the Unit, the costs of which are included within Operating Expenses:

(i) Janitorial services for the Unit common areas as described in Exhibit E attached hereto.

(ii) Unit entry security consistent with similar “first-class” laboratory and R&D buildings in the vicinity of the Unit as described in Exhibit E attached hereto.

(iii) Landlord shall arrange for and provide (as defined below) to the common areas of the Unit those services as set forth in Exhibit E attached hereto.

(iv) Landlord shall provide HVAC service to the common areas of the Unit by means of the Unit mechanical system, during Normal Business Hours, at such temperatures and in such amounts as are reasonably deemed by Landlord to be in keeping with the first-class standards of the Unit.

(v) Landlord shall provide for the maintenance and repair of HVAC systems that are common to all tenants of the Unit.

(vi) Landlord shall provide for the maintenance and repair of the emergency backup electrical systems that are common to all tenants of the Unit.

(vii) Landlord shall provide for the servicing, maintenance and repair of the Neutralization System that is common to tenants of the Unit.

Tenant acknowledges that Landlord has not made any warranty or representation to Tenant as to the efficacy of the security services that Landlord is required to provide under this Lease.

(b) Tenant shall, at its sole cost and expense, provide janitorial services to the Premises on each Business Day during the Term. In addition, Tenant shall arrange for the removal and disposal of its lab-related refuse by a licensed vendor, all at Tenant's sole cost and expense, such removal and disposal to be accomplished in accordance with all applicable Legal Requirements.

(c) Landlord shall provide ventilation to the Premises through the Building mechanical system on a 24/7 basis (the cost of which shall be included in Operating Expenses). Tenant shall have the ability to control the provision of heat, ventilation or air conditioning to the portions of the Premises served by the Building mechanical systems (as opposed to being provided by means of any HVAC equipment or system installed by or on behalf of Tenant and serving only the Premises). The electricity and natural gas consumed in providing HVAC services to the Premises through the Building mechanical system shall be measured by a submeter and charged back to Tenant by Landlord at Landlord's actual cost, without mark-up. The chilled water, hot water and/or condenser water consumed in providing HVAC services to the Premises through the Building mechanical system shall be metered to Tenant. Landlord shall bill Tenant monthly for such electrical and natural gas consumption and water consumption as a recurring charge, and Tenant shall pay each such invoice, as Additional Rent, within thirty (30) days after receipt of an invoice therefor. Tenant agrees to cooperate fully with Landlord with regard to, and to abide by all the reasonable regulations and requirements which Landlord may prescribe for, the proper functioning and protection of the air conditioning system of general applicability to all occupants of the Building and provided such regulations and requirements are provided in writing to Tenant thirty (30) days in advance and the same do not materially interfere with Tenant's use of the Premises for the Permitted Use.

(d) If Tenant desires HVAC service to a common area of the Building outside of Normal Business Hours, Landlord will use reasonable efforts, upon not less than twenty-four (24) hours' prior written notice from Tenant of its requirements in that regard, to furnish additional heat or air conditioning services to such common area during such requested times. Tenant will pay to Landlord Landlord's hourly charge, as the same may be adjusted from time to time by Landlord, for any such additional heat or air conditioning service required by Tenant.

Excluding any equipment to be installed as part of the Initial Tenant Work, in the event Tenant requires additional air conditioning for equipment or other special purposes, or because of occupancy or excess electrical loads, such additional air conditioning equipment shall be installed within the Tenant's Premises and connected via Tenant's BTU usage meters to the supplemental condenser water system installed as part of the Base Building Work, but only if, in Landlord's reasonable judgment, the same will not cause damage or injury to the Building or any Building System, or exceed Tenant's allocated pro-rata share of available condenser water capacity, or create a dangerous or hazardous condition.

(e) Pursuant to Section 10.03, Landlord shall repair, maintain in good condition and order, and replace all Building Systems, including the HVAC, plumbing, electrical, mechanical and other systems, to the extent to which the same were installed as part of the Base Building Work, subject to casualty, condemnation and matters described in Section 16.09, the cost of which shall be included in Operating Expenses to the extent provided in Section 7.01. Tenant shall be solely responsible, at its sole cost and expense, for repairing, maintaining and replacing all equipment which services solely the Premises, whether the same were initially installed by Landlord or Tenant, and whether the same were installed prior to the Rent Commencement Date or thereafter, except to the extent the need for such repair results from Landlord's negligence or willful misconduct or the negligence or willful misconduct of its agents, employees and/or contractors. In no event shall Landlord be liable for any interruption or delay in providing any of the services described in this Section or in Exhibit E attached hereto by reason of any accident, the making of repairs, alterations or improvements, labor difficulties, trouble in obtaining fuel, electricity, service or supplies from the sources from which they are usually obtained for the Unit, governmental restraints, or any cause beyond Landlord's control.



(f) Notwithstanding anything to the contrary contained in this Article 6 or elsewhere in this Lease, Landlord may institute, and Tenant shall comply with, such policies, programs and measures as may reasonably be necessary, required, or expedient for the conservation and/or preservation of energy or energy services, or as may be necessary or required to comply with applicable Legal Requirements.

(g) Tenant acknowledges that the power identified in the Tenant/Landlord Matrix of Responsibility attached as Exhibit C-3 to this Lease will be adequate to supply its proposed permitted uses of the Premises. If, however, Tenant subsequently determines that it will require electric current for use in the Premises in excess of the quantity which, in Landlord's reasonable judgment, Landlord's facilities are capable of providing, then Landlord, upon written request and at the sole cost and expense of Tenant, will furnish and install such additional wire, conduits, feeders, switchboards and appurtenances as reasonably may be required to supply such additional requirements of Tenant if current therefor be available to Landlord, provided that the same shall be permitted by applicable Legal Requirements and Insurance Requirements, and shall not cause damage to the Unit or the Building or the Premises or cause or create a dangerous or hazardous condition or entail excessive or unreasonable alterations or repairs.

(h) Tenant shall have the right to install, at its sole cost and expense, a security system for its Premises provided that (i) such security system is compatible with any security system installed by Landlord with respect to the Unit or the Building as a whole, (ii) Tenant shall provide Landlord with access cards, keys or codes as required to gain entry into all parts of the Premises, subject to the provisions of Section 9.06, and (iii) upon request by Landlord (in its sole discretion), Tenant shall remove all components of such security system upon the expiration or earlier termination of the term of this Lease and repair to Landlord's reasonable satisfaction all damage caused by such removal.

(i) For the Term of this Lease, Landlord shall contract for the provision of scheduled shuttle private bus service or other vehicular transportation for employees of Tenant and other tenants at the Development to and from the Development and the Harvard Square MBTA Red Line Station, as more particularly provided in Exhibit F attached hereto.

### **6.03. Service Interruptions.**

(a) When necessary by reason of accident or emergency, or upon not less than three (3) Business Days' prior written notice (which may be by e-mail) to Tenant for repairs, alterations, replacements or improvements which in the reasonable judgment of Landlord are desirable or necessary to be made, or by reason of event(s) of Force Majeure, Landlord reserves the right to interrupt, curtail, stop or suspend (i) the furnishing of heating, elevator, air conditioning, and cleaning services and (ii) the operation of the plumbing and electric systems. Landlord shall exercise reasonable diligence to eliminate the cause of any such interruption, curtailment, stoppage or suspension, but there shall be no diminution or abatement of rent or other compensation due from Landlord to Tenant hereunder, nor shall this Lease be affected or any of the Tenant's obligations hereunder reduced, and Landlord shall have no responsibility or liability for any such interruption, curtailment, stoppage, or suspension of services or systems, except as provided herein. Landlord shall schedule all non-emergency interruptions, curtailments, stops or suspensions of services or systems in advance and shall notify Tenant thereof. In exercising its rights under this Section 6.03, Landlord shall make a commercially reasonable effort not to unreasonably interfere with Tenant's use of the Premises for the Permitted Use.

(b) Notwithstanding the foregoing, Tenant shall be entitled to a proportionate abatement of Base Rent in the event of a "Landlord Service Interruption" (as defined below). For the purposes hereof, a "**Landlord Service Interruption**" shall occur in the event (i) the Premises shall lack any service which Landlord is required to provide hereunder thereby rendering at least fifty (50%) percent of the usable area of the laboratory portion of the Premises unusable for the Permitted Use for the entirety of the Landlord

Service Interruption Cure Period (as defined below), (ii) such lack of service was not caused by the act or omission of Tenant or any Tenant Party; (iii) Tenant, in fact, ceases to use at least fifty (50%) percent of the usable area of the laboratory portion of the Premises for the entirety of the Landlord Service Interruption Cure Period; and (iv) such interruption of service was the result of causes, events or circumstances within the Landlord's reasonable control and the cure of such interruption is within Landlord's reasonable control. During such Landlord Service Interruption Period, Landlord will, if reasonably practical, cooperate with Tenant to arrange for the provision of any interrupted services on an interim basis via temporary measures until final corrective measures can be accomplished and Tenant will permit Landlord the necessary access to the Premises to remedy such lack of service, subject to the provisions of Section 9.06. For the purposes hereof, the "**Landlord Service Interruption Cure Period**" shall be defined as seven (7) consecutive Business Days after Landlord's receipt of written notice from Tenant of the Landlord Service Interruption. This Section 6.03(b) shall be Tenant's sole and exclusive remedy on account of an interruption of services or Landlord default resulting in an interruption of services other than Tenant's right to obtain affirmative injunctive relief. This Section 6.03(b) shall not apply to any interruption or failure of services required to be provided by Landlord under Section 6.02(a) or Exhibit E attached hereto, which is caused in whole or in part by any act or omission of Tenant or any Tenant Party, or by any occurrence described in Section 16.09, or by any cause whatsoever other than those set forth in the first sentence of this Section 6.03(b). Notwithstanding the foregoing, if either Landlord or Tenant disputes in good faith whether, or the extent to which, an event is subject to the provisions of this Section 6.03(b), or the amount of Tenant's abatement of Base Rent hereunder, such dispute shall be resolved in accordance with Section 16.17 of this Lease; *provided, however*, that in the event that it is ultimately determined that there was a Landlord Service Interruption, then Tenant shall have the right to a retroactive equitable abatement of Base Rent for the period as set forth above, provided that, if the Term expires before Tenant's entire retroactive abatement has been effected, then Landlord shall immediately refund to Tenant any overpayment of Rent due under the Lease not yet received on account of the retroactive abatement.

## ARTICLE 7: OPERATING EXPENSES

### 7.01. Operating Expenses.

(a) "**Operating Expenses**" shall mean all costs and expenses of whatever nature associated with the ownership, operation, management, cleaning, maintenance or repair of the Unit, and of all Building Systems, together with all General Common Assessments (as defined in the Primary Condominium Master Deed) under the Primary Condominium Master Deed, and all special assessments under the Primary Condominium Master Deed, if any, all as described in the Condominium Documents and allocated to the Unit under the Condominium Documents or otherwise reasonably allocated to the Unit by Landlord. Operating Expenses include the costs and expenses incurred in connection with the following (subject to the limitations and exclusions set forth in this Section 7.01): compliance with Landlord's obligations under Sections 6.01, 6.02, 9.13 and 10.03; Common Area charges of the Condominium; amenity expenses; utility, water and sewage services (in each case to the extent not metered to and payable by specific tenants of the Unit); maintenance of signs (excluding maintenance of tenant-specific signage which is charged to those tenants); supplies, materials and equipment purchased or rented; total wage and salary costs paid to, and all contract payments made on account of, all persons engaged in the management, operation, maintenance, security, cleaning and repair of the Unit or the Building or the Development including and below the level of property manager (including any parking management for tenant parking requirements), including Social Security, old age and unemployment taxes and so-called "fringe benefits"; services generally furnished to tenants of the Unit; maintenance, repair and replacement of Unit equipment and components; utilities consumed and expenses incurred in the operation, maintenance and repair of the Unit; costs incurred by Landlord to comply with the terms and conditions of any governmental approvals affecting operations at the Unit, the Building or the Development; workers' compensation insurance and property, liability and other insurance premiums; personal property taxes; rental or lease payments paid by Landlord for rented or

leased personal property used in the operation or maintenance of the Unit (provided that any such payments made to Affiliates of Landlord shall not exceed the amount otherwise payable in an arm's length transaction); fees for required licenses and permits; shuttle and other transportation services operated or contracted for by Landlord to provide transportation for employees of tenants of the Development between the Development and mass transit locations (which shuttle may service other locations owned or controlled by Landlord, in which case Landlord shall equitably allocate the costs of such shuttle between the various properties); and property management fees in an amount not to exceed three percent (3%) of gross revenue. Landlord may use third parties or Affiliates to perform any of these services, and the cost thereof shall be included in Operating Expenses, so long as such third parties are professional and such costs are comparable to market rate costs. Costs referred to in this Section shall be ascertained in accordance with generally accepted accounting principles and allocated to appropriate fiscal periods on the accrual method of accounting.

(b) Operating Expenses shall only include capital expenditures that (A) will, in Landlord's reasonable estimate, result in a reduction in Operating Expenses payable by Tenant, taking into account the amount of annual amortization on account of the capital expenditure in question, or (B) are required to replace any capital items which have become obsolete or non-functional or which Landlord otherwise reasonably determines are required to be replaced in order to maintain the Unit as a first-class laboratory facility, or (C) are required by changes in Legal Requirements or Insurance Requirements occurring after the Delivery Date. Any capital expenditures not excluded from Operating Expenses pursuant to this paragraph shall be amortized over the useful life of the item in question as reasonably determined by Landlord in accordance with the relevant provisions of the Internal Revenue Code and the regulations promulgated thereunder, as amended from time to time, together with interest at Landlord's actual interest rate incurred in financing such capital expenditures, or, if no part of such expenditure is financed, at an imputed interest rate equal to the Prime Rate plus 2%; *provided, however*, if a particular capital expenditure effects savings in other Operating Expenses, including, without limitation, energy related costs, and such savings, on an annual basis ("**Actual Annual Savings**"), exceed the annual depreciation therefor, then and in such event the amount of depreciation for such capital expenditure shall be increased to an amount equal to the Actual Annual Savings; and in such circumstance, the increased depreciation (in the amount of the Actual Annual Savings) shall be made for such period of time as it would take to fully amortize the cost of the item in question, together with interest thereon at the interest rate as aforesaid in equal monthly payments, each in the amount of 1/12th of the Actual Annual Savings, with such payment to be applied first to interest and the balance to principal.

(c) Notwithstanding anything contained herein to the contrary, in no event shall Operating Expenses include any of the following:

- (1) expenses incurred by Landlord to lease space to new tenants or to retain existing tenants including marketing costs, brokerage commissions and concessions and leasehold improvement costs, finders' fees, attorneys' fees and expenses, entertainment costs and travel expenses;
- (2) debt service;
- (3) attorneys' fees incurred in connection with lease negotiations or disputes with individual tenants, and other expenses and attorneys' fees to resolve disputes, enforce or negotiate lease terms with prospective or existing tenants or in connection with any financing, sale or syndication of the Unit or the creation of any condominium unit within the Development;

- (4) accountants' fees incurred in connection with disputes with individual tenants and/or the existence, maintenance or related operations of the legal entity or entities of which Landlord is comprised. Without limitation, the foregoing shall not exclude the costs of preparing financial statements for Operating Expenses;
- (5) the cost of any special work or service performed for any tenant (including Tenant) or licensee, such as after-hours HVAC service, which is billable to such tenant or licensee, or any costs in connection with services or benefits that are provided to or for the particular benefit of specific (but less than all of) the tenants and billable to them;
- (6) the cost of any items for which Landlord is reimbursed by insurance, condemnation, licensees, tenants (other than through general operating expense provisions), warranties or otherwise;
- (7) the cost of any additions, changes, replacements, painting, decorating, renovations and other items that are made solely in order to prepare tenant space for a new tenant's occupancy, or the cost of any other work in any space leased to an existing or prospective tenant or other occupant of the Unit;
- (8) interest, principal, points and fees, amortization or other costs and expenses associated with any debt or amortization payments on any mortgage or deed to secure debt and rental under any ground lease, master space lease or other underlying lease;
- (9) any expenses for repairs or maintenance to the extent reimbursed due to warranties and service contracts;
- (10) any cost that Tenant pays for directly (either to Landlord or a third party);
- (11) any cost for which Landlord is reimbursed by a warranty that Landlord is required to obtain in connection with the Unit pursuant to this Lease or that Landlord otherwise obtains in connection with the Unit;
- (12) any amounts paid to an Affiliate of Landlord for the performance of services that is in excess of the amount that would have been paid on an arm's length basis in the absence of such relationship;
- (13) depreciation and amortization of the Unit or any part thereof (except as otherwise provided in Section 7.01(b) above);
- (14) salaries and bonuses and benefits of officers, executives of Landlord and administrative employees above the grade of property manager or building supervisor, and if a property manager or building supervisor or any personnel below such grades are shared with other buildings or has other duties not related to the building containing the Premises, only the allocable portion of such person's or persons' salary, bonuses, and benefits shall be included in Operating Expenses;
- (15) Landlord's general overhead and administrative expenses;
- (16) cost of alterations, capital improvements, equipment replacement and other items which under generally accepted accounting principles are properly classified as capital expenditures except as provided in Section 7.01(b);

- (17) expenses incurred by Landlord to the extent the same are chargeable to any other tenant or occupant of the Unit, or to any third party;
- (18) any cost incurred solely because of the negligence or willful misconduct of Landlord, its agents and employees, or the Indemnitees;
- (19) penalties, fines and other costs incurred due to violation by Landlord of any lease, the Condominium Documents, or any Legal Requirements or Title Matters applicable to the Building;
- (20) Taxes;
- (21) costs and expenses incurred by Landlord in connection with the repair of damage to the Building or the Unit caused by fire or other casualty, insured or required to be insured against hereunder, other than the deductible amount under such insurance policies;
- (22) the cost of correcting defects in the initial construction of the Building;
- (23) the cost of any item for which Landlord is reimbursed through condemnation awards;
- (24) costs and expenses of investigating, monitoring and remediating hazardous materials which were present on or beneath the surface of the Land as of the Date of Lease;
- (25) charitable or political contributions and membership fees or other payments to trade organizations;
- (26) costs in connection with services that are provided to another lessee or occupant of the Building, but are not offered to Tenant;
- (27) costs or expenses incurred in connection with the financing or sale of the Project or any portion thereof;
- (28) fines, penalties, interest or other amounts imposed in connection with the Landlord's failure to pay any tax when due;
- (29) any item that, if included in Operating Expense, would involve a double collection for such item by Landlord;
- (30) the cost of any "tap fees" or one-time lump sum sewer or water connection fees for the Building payable in connection with the initial construction of the Building, but not including any such fees payable by any specific tenant in connection with obtaining or maintaining any permit or license issued to such tenant in connection with its water or sewer connection or usage (e.g., a MWRA Industrial User Permit);
- (31) reserves of any kind;
- (32) costs and expenses incurred in the design, permitting or initial construction, fixturing and furnishing of the Base Building Work, including the parking facilities and any amenities and any costs of any remodeling, redevelopment or expansion of the Building, Unit or Development;

- (33) the cost of performing work or furnishing service to or for any tenant other than Tenant, at Landlord's expense, to the extent such work or service is in excess of any work or service Landlord is obligated to provide to Tenant or generally to other tenants in the Building at Landlord's expense;
- (34) cost of initial cleaning and rubbish removal from the Building or the Development to be performed before final completion of the Building or tenant space, to the extent such costs relate to the construction of the Building or tenant space; and
- (35) cost to install the initial landscaping of the Building or Development.

Tenant shall pay Tenant's Percentage Share of Operating Expenses in accordance with Section 4.02.

#### **ARTICLE 8: INSURANCE**

**8.01. Coverage.** Tenant shall maintain throughout the Term, at its sole cost and expense, insurance for the benefit of Tenant and Landlord (as their interests may appear) from insurers authorized to do business in the state in which the Development is located, rated at least "A:VII" by A.M. Best, with terms and coverages reasonably satisfactory to Landlord, and with such increases in limits as the holder of any mortgage on the Unit (either alone or as part of a larger mortgaged property) may from time to time require, or as Landlord may from time to time reasonably require (provided that such limits are the same as those then being provided by similar types of tenants in the greater Boston area under leases of similar types of premises). Initially, Tenant shall maintain the following on an occurrence basis (except as otherwise expressly provided below):

- (A) Commercial general liability insurance on an occurrence basis naming Landlord, Landlord's managing agent and Landlord's mortgagee(s) of which Tenant has received prior written notice from time to time as additional insureds, insuring against all claims and demands for personal injury liability (including bodily injury, sickness, disease, and death) or damage to property, with combined single limits of not less than \$5,000,000 per occurrence and \$5,000,000 in the aggregate, which coverages may be effected by primary or excess coverage. The policy shall not contain any intra-insured exclusions as between insured persons or organizations, but shall include coverage for liability assumed under this Lease as an "insured contract" for the performance of Tenant's indemnity obligations under this Lease. Such insurance shall be primary and not contributing to any insurance available to Landlord, and Landlord's insurance (if any) shall be in excess thereto;
- (B) Property insurance covering property damage and business interruption. Covered property shall include all Tenant improvements in the Premises other than the Initial Tenant Work, but including all other Tenant Work, and Tenant's Property. Such insurance, with respect only to Tenant Work, shall name Landlord and Landlord's mortgagees of which Tenant has received written notice from time to time as additional loss payees as their interests may appear. Such insurance shall be written on an "all risk" of physical loss or damage basis including the perils of fire, extended coverage, windstorm, vandalism, malicious mischief, sprinkler leakage, flood and earthquake, and such other risks Landlord may from time to time designate (provided that insurance for such risks is then commercially available at commercially reasonable rates and is being carried by similar tenants for research and laboratory facilities in the vicinity of the Unit), for the full replacement cost of the covered items (provided that coverage limits for flood and earthquake coverages may be in lesser but commercially reasonable amounts) and in amounts that meet any co-insurance clause of the policies of insurance, with a deductible amount not to exceed a then-commercially reasonable deductible, which initially shall be no greater than \$50,000 (other than for flood and earthquake, for which such deductibles shall initially be no greater than \$100,000);

- (C) Workers' compensation insurance with statutory benefits and employers liability insurance in the following amounts: each accident, \$1,000,000; disease (policy limit), \$1,000,000; disease (each employee), \$1,000,000;
- (D) Pollution legal liability insurance covering first and third-party claims for clean-up costs, personal injury and property damage on an on-site and off-site basis, with a single claim and aggregate claim amount of Three Million Dollars (\$3,000,000.00), naming Landlord, Landlord's managing agent and Landlord's mortgagee(s) from time to time as additional insureds. The parties acknowledge and agree that the insurance required by this paragraph (E) shall not include coverage for pre-existing environmental conditions at the Development as of the Date of Lease; and
- (E) During all construction by Tenant, Tenant shall maintain with respect to the Premises and the Unit adequate builder's risk insurance, in form and amount reasonably satisfactory to Landlord based upon the scope of work, (and Landlord, its mortgagees of which Tenant has received written notice, and any ground or master lease lessors of which Tenant has received written notice shall be named as an additional insured party as their interest may appear).

Tenant shall give Landlord certificate(s) evidencing (i) the coverages required by Sections 8.1(A)–(D) not later than thirty (30) days prior to the earlier of either (a) the Delivery Date or (b) the date on which Tenant anticipates that Tenant's Contractor will commence its on-site mobilization for the performance of the Initial Tenant Work, which coverage shall be effective not later than the earlier of the dates set forth in the foregoing clauses (a) and (b), and (ii) the coverage required by Section 8.1(D) not later than thirty (30) days prior to the earlier of either (x) the first delivery of Hazardous Materials to the Premises for Tenant's use, or (y) Tenant's occupancy of any portion of the Premises for the conduct of business therein, which coverage shall be effective not later than the earlier of the dates set forth in the foregoing clauses (x) and (y). Thereafter, Tenant shall provide certificates of each insurance coverage required by this Section not less than twenty (20) days before the expiration of such insurance coverage. All insurance certificates required to be provided by Tenant shall state that such coverages may not be canceled without at least ten (10) days' prior written notice to Landlord and Tenant for cancellation due to non-payment and thirty (30) days' prior written notice to Landlord and Tenant for other cancellations. Tenant shall provide written notice to Landlord of any amendments to Tenant's insurance policies which could materially and adversely affect Landlord's interest not later than the effective date of such amendment. All deductible amounts or self-insured retentions shall be commercially reasonable in amount, and shall be the sole responsibility of Tenant. In addition, Tenant shall cause Tenant's Contractor to provide to Tenant on or before the Date of Lease certificates evidencing the coverages required by Sections 8.1(A) and (C) maintained by Tenant's Contractor, and naming as additional insureds Landlord, Landlord's managing agent and Landlord's mortgagee(s) of which Tenant has received prior written notice from time to time, which coverages shall be effective as of such date, and thereafter to provide to Landlord certificates of each such insurance coverage not less than thirty (30) days before the expiration of such insurance coverage.

If Tenant does not procure the insurance required pursuant to this Section, or keep the same in full force and effect, Landlord may, but shall not be obligated to, take out the necessary insurance and pay the premium therefor after written notice thereof to Tenant, and Tenant shall repay to Landlord, as Additional Rent, the amount so paid (together with interest thereon at the Default Rate) within ten (10) days of Landlord's written demand. In addition, Landlord may recover from Tenant, as Additional Rent, any and

all reasonable expenses (including reasonable attorneys' fees) and damages which Landlord may sustain by reason of the failure by Tenant to obtain and maintain such insurance, it being expressly declared that the expenses and damages of Landlord shall not be limited to the amount of the premiums thereon. The foregoing rights and remedies of Landlord shall not be deemed to waive any default or Event of Default under this Lease resulting from any such failure by Tenant to procure or to maintain in full force and effect any insurance required by this Section.

**8.02. Avoid Action Increasing Rates.** Tenant shall not use or permit any use of the Premises beyond the Permitted Use in any way that will make avoidable any insurance on the Unit, the Building or the Development, or on the contents thereof, or which shall be contrary to any requirements from time to time established or made by Landlord's insurer, or which increases the cost of Landlord's insurance or requires additional insurance. Tenant shall cure any breach of this Section within ten (10) days after written notice from Landlord or Tenant otherwise learning of such by (i) stopping any use that jeopardizes any insurance coverage or increases its cost or (ii) paying the increased cost of insurance. Tenant shall have no further notice or cure right under Article 13 for any such breach. Tenant shall reimburse Landlord within ten (10) days of Landlord's written demand, as Additional Rent, for all of Landlord's costs reasonably incurred in providing any insurance that is attributable to any special endorsement or increase in premium resulting from the business or operations of Tenant other than those customarily associated with laboratory/R&D use for the type of medical research conducted by Tenant, and any special or extraordinary risks or hazards resulting therefrom, including any risks or hazards associated with the generation, storage and disposal of Hazardous Materials other than those customarily associated with laboratory/R&D use for the type of medical research conducted by Tenant.

**8.03. Waiver of Subrogation.** Landlord and Tenant each waive any and every claim for recovery from the other for any and all loss of or damage to the Unit or any part of it, or to any of its contents, which loss or damage is covered by valid and collectible property insurance. This mutual waiver precludes the assignment of any such claim by subrogation (or otherwise) to an insurance company (or any other person), and Landlord and Tenant each agree to give written notice of this waiver to each insurance company that has issued or shall issue any property insurance policy to it, and to have such policies properly endorsed, if necessary, to prevent invalidation of the insurance coverage because of this waiver. In consideration of the foregoing, each of the parties hereto agrees with the other party that such insurance policies as it may have in effect during the Term of this Lease shall include a clause or endorsement which provides in substance that the insurance company waives any right of subrogation which it might otherwise have against Landlord, Landlord's managing agent, or Tenant.

**8.04. Landlord's Insurance.** Landlord shall maintain (or cause to be maintained) at all times during the Term: (a) special form property insurance coverage in an amount equal to the full replacement value of the Building (excluding Tenant's trade fixtures, equipment, Tenant Work (other than the Initial Tenant Work, which shall be insured by Landlord), Tenant's Property and property not owned by Landlord); and (b) commercial general liability insurance covering the Development, (i) in the minimum amounts of One Million Dollars (\$1,000,000.00) per occurrence, with an annual aggregate limit of Two Million Dollars (\$2,000,000.00) for personal or bodily injury and damage to property, and (ii) an umbrella policy in the minimum coverage amount of Five Million Dollars (\$5,000,000.00) per occurrence, with an annual aggregate limit of Five Million Dollars (\$5,000,000.00); and (iii) any and all other insurance required to be maintained by Landlord by the Condominium Documents. As set forth in Section 4.02, the cost of any such insurance shall be borne by Tenant and other tenants of the Development as part of Operating Costs.



## ARTICLE 9: USE OF PREMISES

### 9.01. Permitted Uses.

(a) Tenant shall use the Premises only for the Permitted Uses described in Article 1 and for no other use. In furtherance, and not in limitation, of the foregoing, in no event shall any portion of the Premises be used for retail uses (including a restaurant or any café, coffee shop or other eatery) or any high density office use. Tenant shall certify to Landlord, upon request from time to time, the aggregate rentable square footage in the Premises being used for Non-Life Science Uses. Tenant shall keep the Premises equipped with appropriate safety appliances to the extent required by applicable Legal Requirements or Insurance Requirements. Tenant shall not cause or permit any potentially harmful air emissions, odors of cooking or other processes, or other objectionable odors or emissions to emanate from the Premises. Tenant shall not conduct or permit any auctions or sheriff's sales at the Premises.

(b) If Tenant intends at any time during the Term to conduct animal research within the Premises, such research shall be limited to biopharmaceutical research and development, including the handling and testing of laboratory mice, laboratory rats and other laboratory small mammals only (the "**Permitted Animals**") in connection therewith, and for no other purpose or use; *provided, however*, that in no event shall Tenant bring into or maintain in the Premises any animal for research purposes other than those permitted by applicable Legal Requirements for use in the Permitted Use. If Tenant proposes to use any animals other than the Permitted Animals enumerated in the immediately preceding sentence in its operations, it shall first obtain the prior written consent of Landlord, which consent Landlord shall not unreasonably withhold. Animal research, solely of Permitted Animals, shall be permitted subject to the following: (a) all testing and research shall be conducted in strict compliance with all applicable Legal Requirements and with good scientific and medical practice; (b) all dead animals, any part thereof or any waste products related thereto, shall be disposed of, at Tenant's sole cost and expense, in strict compliance with all applicable Legal Requirements and with good scientific and medical practice; (c) no odors, noises or any similar nuisance shall be permitted to emanate from the vivarium; and (d) Tenant's use of research animals shall not interfere with the peaceable and quiet use and enjoyment by other tenants or occupants of the Unit or the Building of their respective demised premises. Tenant shall procure and deliver to Landlord copies of all permits and approvals necessary for the use and operation of the vivarium and the keeping of Permitted Animals before allowing any actual Permitted Animals into the Premises and shall maintain such permits and approvals in full force and effect at all times during the Term. Tenant shall indemnify, save harmless and defend the "Indemnitees" (as defined in Section 9.02 hereof) from and against all liability, claim, damage, loss or cost (including reasonable attorneys' fees) arising out of or relating to the use and operation of the vivarium and the presence of the Permitted Animals in and about the Premises, except to the extent to which the same was caused by the negligence or willful misconduct of any of the Indemnitees.

**9.02. Indemnification.** Tenant is responsible for the Premises and any Tenant's improvements, equipment, facilities and installations, wherever located in the Building or the Land, and all liabilities, including tort liabilities, incident thereto, except to the extent caused by the negligence or willful misconduct of Landlord, Landlord's agents, employees or contractors, or the Indemnitees. Except to the extent caused by the negligence or willful misconduct of Landlord, Landlord's agents, employees or contractors, or the Indemnitees, Tenant shall indemnify, save harmless and defend Landlord and Landlord's partners, trustees, beneficiaries, shareholders, members, managers, owners, officers, directors, mortgagees, ground lessors, agents, employees, independent contractors, Landlord's managing agent and other persons acting under them (collectively, "**Indemnitees**"), from and against all liability, claim, damage, loss or cost (including reasonable attorneys' fees) arising in whole or part out of, or in any way related to, (i) any alleged or actual injury, loss, theft or damage to any person or property while on the Premises; (ii) any alleged or actual injury, loss, theft or damage to any person or property while on the Development (other than within the Premises) to the extent arising from the acts or omissions of Tenant or persons claiming by, through or under Tenant, or any of their respective officers, employees, agents, servants, contractors or invitees (collectively, "**Tenant Parties**"); (iii) any alleged or actual condition within the Premises (except to the extent caused by a person or entity other than Tenant or a Tenant Party, for which Tenant is not otherwise responsible, as to which Tenant shall have the burden of proof); or (iv) failure of Tenant or any Tenant Party to comply with any provision of this Lease or the Condominium Documents, in each case under (i) through (iv) above paying any cost to Landlord within ten (10) days of written demand as Additional Rent.

The provisions of this Section 9.02 shall survive the expiration or earlier termination of this Lease.

### **9.03. Compliance With Legal Requirements and Title Matters.**

(a) Tenant shall not permit the Premises, or cause the Premises or the Unit or the Building, to be used in any way that violates any applicable law, code, ordinance, governmental regulation, determination, order, permit, approval or any other governmental consent (each a “**Legal Requirement**”) or any Title Matter or any provision of the Condominium Documents, or that unreasonably interferes with the use of other portions (i.e., other than the Premises) of the Unit, the Building or the Development by other tenants, or constitutes a nuisance or waste. Landlord hereby states that none of the existing Title Matters set forth on Exhibit D attached hereto will prohibit the use of the Premises for the Permitted Uses set forth in Article 1. Tenant shall, at its sole cost and expense, be responsible for compliance with all Legal Requirements and Title Matters applicable to the Premises (or to the Unit or the Building solely by reason of Tenant’s specific use of the Premises, as opposed to laboratory/research and development uses in general), including the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules dated April 2016 (as the same may be amended, restated or replaced). The foregoing notwithstanding, Landlord, and not Tenant, shall be responsible for making all improvements and alterations to the common areas of the Development, the Unit and the Building which are required to cause the same to comply with all present and future Legal Requirements (the cost of which shall be included in Operating Expenses to the extent allowable pursuant to Section 7.01(b)).

(b) Tenant shall be responsible, at its sole cost and expense, for procuring and maintaining in full force and effect, and complying at all times with, any and all necessary permits, certifications, permissions and the like and complying with any reporting requirements directly relating or incident to the conduct of its activities on the Premises. Within ten (10) Business Days of a request by Landlord, which request shall be made not more than once during each period of twelve (12) consecutive months during the Term hereof, unless otherwise requested by any mortgagee of Landlord or prospective purchaser of the Unit (either by itself or as part of a mortgage on or purchase of a larger portion of the Development), Tenant shall furnish Landlord with copies of all such permits that Tenant has obtained. Tenant shall promptly give notice to Landlord of any written warnings or violations delivered by any governmental authority relating to Tenant’s use or occupancy of, or any condition within, the Premises (including building code violations, fire safety code violations, wastewater management violations, OSHA violations, or violations of Legal Requirements (including Environmental Laws)) received from any federal, state, or municipal agency or any court of law within ten (10) Business Days after Tenant’s receipt of such notice and shall promptly cure the conditions causing any such violations. Tenant shall not be deemed to be in default of its obligations under the preceding sentence to promptly cure any condition causing any such violation in the event that, in lieu of such cure, Tenant shall contest the validity of such violation, or apply for a variance or permission to allow such use by appellate or other proceedings permitted under applicable Legal Requirements, provided that: (i) any such contest is made reasonably and in good faith, (ii) Tenant makes provisions reasonably acceptable to Landlord, including posting bond(s) or giving other security reasonably acceptable to Landlord, to protect Landlord and its mortgagees, and the Unit from any liability, costs, damages or expenses arising in connection with such violation and failure to cure, (iii) Tenant agrees to indemnify, defend (with counsel reasonably acceptable to Landlord) and hold Landlord and its mortgagees harmless from and against any and all liability, costs, damages, or expenses arising in connection with such condition and/or violation, except to the extent to which such condition was caused by the negligence or willful misconduct of Landlord or Landlord’s employees, agents or contractors, (iv) Tenant shall promptly cure any violation in the event that its appeal of such violation is overruled or rejected, (v) Tenant shall certify to Landlord’s and its mortgagees’ reasonable satisfaction that Tenant’s decision to delay such cure will not result in any actual or threatened bodily injury or property damage to Landlord, any tenant or occupant of the Unit or the Building or any other person or entity, and (vi) this Lease is in full force and effect and no Event of Default has occurred and is then continuing.

(c) In order to encourage the use of alternative means of transportation to and from the Premises by Tenant's employees, Tenant shall (i) provide to qualified employees monthly transit subsidies, such as subsidizing MBTA monthly passes and providing Bluebike annual memberships for employees who otherwise drive to work two or fewer days per week, (ii) promote ridesharing for employees, consistent with COVID-19 and other public health protocols, and (iii) permit employees to set aside a portion of their salaries on a pre-tax basis as allowable under the commuter choice provisions of the federal tax code (as amended from time to time).

#### **9.04. Hazardous Materials.**

(a) "**Environmental Law**" shall mean all statutes, laws, rules, regulations, codes, ordinances, standards, guidelines, authorizations and orders of federal, state or local public authorities now in force or hereafter enacted, modified, or amended pertaining to the protection of the environment or to health or safety risks arising therefrom, including, but not limited to, control of air pollution, water pollution, groundwater pollution, and the generation, manufacture, management, handling, use, sale, transportation, delivery, discharge, emission, treatment, storage, disposal, release or threatened release of Hazardous Materials. To the extent applicable, such laws include, but are not limited to: (1) the Clean Air Act, 42 U.S.C. § 7401, et seq.; (2) the Clean Water Act, 33 U.S.C. § 1251, et seq.; (3) the Safe Drinking Water Act, 42 U.S.C. § 300f, et seq.; (4) the Resource Conservation and Recovery Act, 42 U.S.C. § 6901, et seq.; (5) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601, et seq.; (6) the Toxic Substances Control Act, 15 U.S.C. § 2601, et seq.; (7) Title III of the Superfund Amendments and Reauthorization Act, also known as the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11001; (8) the Hazardous Materials Transportation Act, 49 U.S.C. § 1801 et seq.; (9) federal regulations promulgated pursuant to any of the foregoing statutes; (10) Massachusetts laws and regulations enacted in order to implement federal environmental statutes and regulations; (11) the Massachusetts Hazardous Waste Management Act, M.G.L. c. 21C; (12) the Massachusetts Oil and Hazardous Materials Release Prevention and Response Act, M.G.L. c. 21E; (13) the Hazardous Substances Disclosure by Employers Act, M.G.L. c. 111F; (14) Massachusetts regulations promulgated pursuant to the authority of applicable state environmental laws; and (15) local ordinances and regulations.

"**Hazardous Materials**" shall mean, but shall not be limited to, any products, hazardous substances, hazardous waste, toxic substances, environmental, biological, pathological, chemical, radioactive materials, waste or substances, oil or petroleum products and any material, waste or substance, which because of its quantitative concentration, chemical, biological, radioactive, flammable, explosive, infectious, or other characteristics, constitutes or may reasonably be expected to constitute or contribute to a danger or hazard to public health, safety or welfare or to the environment, including any asbestos (whether or not friable) and any asbestos-containing materials, lead paint, waste oils, solvents and chlorinated oils, polychlorinated biphenyls (PCBs), toxic metals, etchants, pickling and plating wastes, explosives, reactive metals and compounds, pesticides, herbicides, radon gas, urea formaldehyde foam insulation and chemical, biological and radioactive wastes, or any other materials or substances that are mentioned under or regulated by any Environmental Law; and including any other products or materials subsequently found by an authority of competent jurisdiction to have adverse effects on the environment or the health and safety of persons.

(b) Tenant, at its sole cost and expense, shall (i) except as otherwise expressly provided in [Section 9.13](#) below with respect to the Neutralization System, obtain all required permits and approvals for, and (ii) comply with all Environmental Laws pertaining to, the transportation, use, storage, generation, disposal, release or discharge of Hazardous Materials to, from or at the Premises by Tenant or any Tenant Party, including those Environmental Laws and permit provisions applicable to Tenant's use of the Neutralization System. Provided that the same is performed at all times in accordance with the provisions of this Lease, Tenant may generate, produce, bring upon, use, store or treat Hazardous Materials in the Premises which are (a) typically found in commercial construction sites (which shall apply only during such time as Tenant is performing construction at the Premises as provided for in this Lease), (b) cleaning products or office supplies typically used in laboratory/office space, and (c) materials otherwise used in the ordinary course of Tenant's operations and typically found in other leased laboratory space used for comparable purposes, as reasonably needed for Tenant's operations and research activities, and strictly in accordance with Environmental Laws. In all events Tenant shall comply with all applicable provisions of the standards of the U.S. Department of Health and Human Services as further described in the USDHHS publication Biosafety in Microbiological and Biomedical Laboratories (5th Edition, December 2009) as it may be further revised, or such nationally recognized new or replacement standards as may be reasonably selected by Landlord. Except as otherwise set forth above, Tenant shall not cause or permit any Hazardous Materials to be generated, produced, brought upon, used, stored, treated or disposed of to, from, or in or about the Premises by Tenant or any Tenant Party without Landlord's prior written consent, which may be withheld in Landlord's sole discretion. Any Hazardous Materials permitted to be stored on the Premises pursuant to this paragraph shall be stored in areas of the Premises exclusively designated by Tenant for such purpose to the extent required by Legal Requirements. All industrial gases shall be contained in designated secured and screened areas as approved by applicable governmental authorities. Tenant shall have the right to store Hazardous Materials in "Control Areas" capable of holding Hazardous Materials in accordance with applicable Legal Requirements, including 780 CMR and 527 CMR requirements for "Control Areas", as follows: Tenant shall have the right to use fifty (50%) percent of the "Control Area" within Chemical Storage Room 105 on the first floor of the Building in accordance with the plan of the Premises attached hereto as **Exhibit B**. Except as provided in the immediately preceding sentence, in no event shall any Hazardous Materials be generated, stored or used outside of the Premises. Tenant shall not dispose of Hazardous Materials from the Premises to any other location except in strict compliance with all applicable Environmental Laws, nor permit any persons acting under it to do so. Notwithstanding the foregoing, Tenant shall not, in any event, be responsible for any Hazardous Materials to the extent such Hazardous Materials are introduced to the Development by anyone other than Tenant or any Tenant Party.

(c) Within five (5) Business Days after taking initial occupancy of the Premises, Tenant shall provide to Landlord a list of all Hazardous Materials used, stored or generated by Tenant in the Premises, including quantities of each anticipated to be used, stored or generated, together with the material safety data sheet ("MSDS") for each such Hazardous Material. Thereafter, within ten (10) Business Days of Landlord's written request, Tenant shall provide Landlord with an updated list of all Hazardous Materials used, stored or generated by Tenant in the Premises, including quantities of each, together with the MSDS for each such Hazardous Material. From time to time at Landlord's written request, but not more than once in any twelve (12) month period unless either Tenant is in default of its obligations under this [Section 9.04](#) or Landlord has reason to believe that a release of Hazardous Materials has occurred on, at or from the Premises caused by Tenant or a Tenant Party, Tenant shall execute affidavits, certifications and the like, in form reasonably acceptable to Tenant, to the best of Tenant's knowledge and belief, regarding the presence or absence of Hazardous Materials on the Premises or the Unit used, stored, generated, disposed of or released by Tenant or any Tenant Party. Furthermore, within fifteen (15) days after Landlord's written request, Tenant shall make available to Landlord at the Premises, for review and audit by Landlord, all of Tenant's books and records relating to the types and amounts of all Hazardous Materials being generated, produced, brought upon, used, stored or disposed of by or on behalf of Tenant at, on or from the Premises, together with copies of any federal, state or municipal filings or compliance reports made by Tenant with respect to such Hazardous Materials that are required by applicable Environmental Law. Tenant agrees to pay the cost of any environmental inspection or assessment requested by any governmental agencies, mortgagees of the Unit (either by itself or as part of a larger mortgaged property), or by any insurance carrier to the

extent that such inspection or assessment pertains to any release, threat of release, contamination, claim of contamination, loss or damage or deterioration of condition in the Premises caused by or alleged to be caused by Tenant or any Tenant Party (collectively, “**Environmental Incidents**”). Notwithstanding anything to the contrary contained in this Section 9.04, to the extent that any disclosure, affidavit or similar document to be provided by Tenant to Landlord pursuant to this Section 9.04 would otherwise be required to disclose proprietary information concerning chemicals, substances, or materials synthesized by Tenant from constituent Hazardous Materials, such disclosure may exclude such proprietary information provided that the constituent Hazardous Materials (but not the manner, quantities or concentrations in which they are combined to form such chemicals, substances or materials) are identified therein.

(d) Landlord shall not be liable to Tenant or any Tenant Party or to any person or governmental authority whatsoever for any release of Hazardous Materials brought to the Premises by or on behalf of Tenant at any time during the Term, except to the extent caused by the negligence or willful misconduct of Landlord or its employees, agents or contractors. Landlord shall have the right, from time to time during the Term, but not more than once in any twelve (12) month period unless either Tenant is in default of its obligations under this Section 9.04 or Landlord has reason to believe that a release of Hazardous Materials has occurred on, at or from the Premises caused by Tenant or a Tenant Party, to enter upon the Premises upon reasonable prior notice to Tenant to perform environmental audits relating to the operations of Tenant and all those claiming through Tenant on the Premises, including (i) reviewing records relating to compliance with Environmental Laws and industry standards applicable to the generation, handling, use, storage and disposal of Hazardous Materials, (ii) observing techniques for handling, storing, using and disposing of Hazardous Materials, (iii) reviewing documentation relating to the off-Premises disposal of Hazardous Materials from the Premises, and (iv) conducting such tests as Landlord reasonably deems appropriate, all such work to be performed at Landlord’s sole expense except as otherwise provided in the next sentence. In addition to, and not in limitation of the rights provided in the immediately preceding sentence, if required by any governmental agency or if Landlord reasonably believes that a release of Hazardous Materials has occurred on or from the Premises by Tenant or any Tenant Party or a threat of release exists arising from Hazardous Materials not being handled, stored, used or disposed of by Tenant or any Tenant Party in accordance with the requirements of this Lease and all applicable Environmental Laws, then Landlord may, but need not, perform appropriate testing and the reasonable costs thereof shall be reimbursed to Landlord by Tenant within ten (10) Business Days of demand, as Additional Rent, except that Landlord shall bear the cost of such testing if (i) Landlord (rather than a governmental agency) requested such testing and (ii) such testing determines that no such release has occurred as a result of the actions of Tenant or any Tenant Party and that Hazardous Materials are being handled, used, stored and disposed of in compliance with the terms of this Lease and all applicable Environmental Laws. Tenant shall cooperate with Landlord in connection with any environmental audits or other inspections or testing performed by Landlord pursuant to this Section. Landlord and any third parties conducting such audits and/or inspecting Tenant’s books and records shall enter into reasonable non-disclosure and confidentiality agreements with Tenant, in form reasonably acceptable to Landlord and Tenant.

(e) If any transportation, generation, storage, use or disposal of Hazardous Materials on or about the Premises or the Land by Tenant or any Tenant Party results in the release onto, or other contamination of, any portion of the Unit, the Building, the Land, or any other portion of the Development or adjacent areas, soil or surface or ground water, or any loss or damage to person(s) or property, Tenant agrees to: (a) notify Landlord immediately, once Tenant has knowledge or has received notice, of any release, contamination, claim of contamination, loss or damage, and (b) after consultation with Landlord, clean up the release or contamination in compliance with all applicable Environmental Laws or Legal Requirements. In the event of such contamination, Tenant agrees to cooperate fully with Landlord and to provide such documents, affidavits and information as may be reasonably requested by Landlord (1) to comply with any Environmental Law or Legal Requirement, and/or (2) to comply with the request of any lender, investor or purchaser with respect to Hazardous Materials. Tenant shall notify Landlord promptly

in the event of any spill or other release of any Hazardous Material at, in, on, under or about the Premises, the Building or elsewhere within the Development by Tenant or any Tenant Party that is required to be reported to a governmental authority under any Environmental Law or Legal Requirement, shall promptly forward to Landlord copies of any written notices received by Tenant relating to alleged violations of any Environmental Law or Legal Requirement and shall promptly pay when due any fine or assessment against Landlord, Tenant, the Premises, the Unit or any other portion of the Development relating to any violation of any Environmental Law or Legal Requirement by Tenant or any Tenant Party. If any governmental authority files a lien against the Premises, the Unit, the Building or any other portion of the Development due to any act or omission, intentional or unintentional, of Tenant or any Tenant Party that results or has resulted in the releasing, spilling, leaking, leaching, pumping, emitting, pouring, emptying or dumping of any Hazardous Material, Tenant shall, within ten (10) Business Days from the date that Tenant is first given notice of such lien (or within such shorter period of time as may be specified by Landlord if such governmental authority takes steps to enforce such lien) either (A) pay the claim and remove the lien or (B) furnish a cash deposit, bond or such other security as is reasonably satisfactory in all respects to Landlord and sufficient to discharge the lien completely.

(f) Any increase in the premium for necessary insurance on the Premises, the Unit or the Building which arises from Tenant's use and/or storage of Hazardous Materials beyond those typically found in laboratory and office space used for comparable purposes shall be solely at Tenant's expense. Tenant shall procure and maintain at its sole expense such additional insurance as may be required to comply with any requirement of any federal, state or local government agency with jurisdiction.

(g) Except to the extent caused by the negligence or willful misconduct of Landlord, its employees, agents or contractors, or the Indemnitees, Tenant shall indemnify, defend with counsel reasonably acceptable to Landlord and hold the Indemnitees fully harmless from and against any and all liability, loss, suits, claims, actions, causes of action, proceedings, judgments, demands, costs, penalties, damages (including indirect and consequential damages), fines and expenses, including reasonable attorneys' fees (including reasonable attorneys' fees of Landlord's counsel and costs of litigation), consultants' fees, laboratory fees and clean-up costs, and the costs and expenses of investigating and defending any claims or proceedings, resulting from, or attributable to (i) the presence of any Hazardous Materials on or in the Premises, the Building or the Development arising from the act, omission or negligence of Tenant or any Tenant Party, or arising out of the generation, storage, treatment, handling, transportation, disposal or release by Tenant or any Tenant Party of any Hazardous Materials at or near the Premises or the remainder of the Development, (ii) any violation(s) by Tenant or any Tenant Party of any Environmental Laws, (iii) any Environmental Incidents (as defined above) and (iv) any breach by Tenant of its covenants and obligations under this [Section 9.04](#), [Section 9.13](#) or [Section 10.07](#).

(h) Landlord shall indemnify, defend and hold Tenant fully harmless from and against any and all liability, loss, suits, claims, actions, causes of action, proceedings, judgments, demands, costs, penalties, damages, fines and expenses, including reasonable attorneys' fees and costs of litigation, consultants' fees, laboratory fees and clean-up costs, and the costs and expenses of investigating and defending any claims or proceedings, resulting from, or attributable to the presence of any Hazardous Materials on or in the Premises, the Building or the Development which were present prior to the Date of Lease and which require remedial action under applicable Environmental Laws.

(i) Any permit application for laboratory/research use or occupancy which includes the use of chemical fume hoods shall include an "Exhaust Air Dispersion Report" which includes a detailed exhaust dispersion analysis demonstrating that each fume hood exhaust plume is directed upward sufficient to ensure that prevailing winds will not carry the exhaust plume into fresh air intakes, open windows, or into a pedestrian environment.

(j) The provisions of this Section 9.04 shall survive the expiration of the Term or the earlier termination of this Lease.

(k) Reference is made to Section 10.07 for provisions relating to the decommissioning of the Premises by Tenant upon the expiration of the Term or the earlier expiration of this Lease.

**9.05. Signs.** Except as expressly otherwise provided in this Section and except for the Initial Tenant Work, no sign, antenna or other structure or thing shall be erected or placed on the Premises or on any part of the exterior of the Building or anywhere on the Land, or otherwise erected or installed so as to be visible from the exterior of the Building, without first securing the written consent of Landlord, which be withheld by Landlord in its sole and absolute discretion Landlord, at Landlord's cost, shall provide building standard signage within the Unit lobby identifying Tenant. Landlord shall also provide to Tenant Tenant's Percentage Share of entries on any directory maintained by Landlord from time to time within the Unit. If Landlord does consent to the installation by Tenant of any exterior signage (without hereby implying any obligation on the part of Landlord so to consent), then (i) such sign shall be installed at the location, and shall be mounted and illuminated, as so approved by Landlord, and (ii) Tenant shall be solely responsible, at its sole cost and expense, but with Landlord's reasonable cooperation at no cost or expense to Landlord, for (A) obtaining and maintaining in full force and effect all licenses, permits and approvals required from any governmental authority in connection with the installation or maintenance of all exterior signage, (B) the installation, maintenance and repair of all exterior signage, and shall maintain the same in good condition at all times, and (C) removing all signage installed by Tenant upon the expiration or earlier termination of the Term, and repairing all damage caused by such removal to Landlord's reasonable satisfaction. All signage installed by or on behalf of Tenant shall comply with all applicable Legal Requirements. In the event that Landlord elects in the future to install a monument sign for the Building upon which the names of tenants can be displayed (without hereby obligating Landlord to install any such monument sign), Landlord shall make available to Tenant for the display of its name thereon Tenant's Percentage Share of the portion of the monument sign reserved for the display of the names of tenants in the Building.

**9.06. Landlord's Access.** Subject to the provisions of this Section, Landlord or its agents may enter the Premises at all reasonable times to show the Premises to potential buyers, investors, tenants (but with respect to potential tenants, only in the final twelve (12) months of the Term) or other parties; to inspect and conduct tests in order to monitor Tenant's compliance with Legal Requirements governing Hazardous Materials; for purposes described in Sections 2.01, 9.04, 10.03 and/or 10.04(b); or for any other purpose Landlord reasonably deems necessary. No prospective lender, purchaser, or tenant claiming through Landlord shall be permitted access to the Premises without a representative of Landlord present. Except in the event of an emergency posing an imminent threat of personal injury or damage to the Premises (in which event notice shall be provided as soon as reasonably practicable), Landlord shall give Tenant at least forty-eight (48) hours' prior notice (which may be by e-mail to Tenant at [jziolkowski@vigilneuro.com](mailto:jziolkowski@vigilneuro.com)) of any entry by Landlord into the Premises. Tenant may reasonably designate by written notice to Landlord certain "secure areas" within the Premises as to which any entry by Landlord, other than in case of emergency, shall occur only with a representative of Tenant or its authorized designee present; provided that if Tenant or its authorized designee fails to appear for a scheduled inspection or access by Landlord, Landlord may nevertheless proceed with such scheduled inspection or access so long as Landlord complies with Tenant's standard protocols for such access of which Tenant has given Landlord written notice at least five (5) Business Days prior to Landlord's entry. Notwithstanding the preceding provisions of this Section, in case of emergency, Landlord may enter any part of the Premises at any time without prior notice to Tenant provided that Landlord provides Tenant with notice of such entry as soon as reasonably possible thereafter. Landlord shall use reasonable efforts not to interfere with Tenant's use and occupancy of the Premises for the Permitted Use when exercising Landlord's rights under this paragraph. Landlord agrees to comply with Tenant's reasonable requirements (including requirements in connection with access, health, safety, and/or security checks) in connection with non-emergency access to the Premises to the extent to which the same are consistent with the provisions of this Section and have been provided to Landlord in writing prior to any such entry.

**9.07. Landlord's Rules and Regulations.** Tenant and all Tenant Parties shall observe Landlord's rules and regulations ("**Landlord's Rules and Regulations**") promulgated (and amended from time to time) with respect to the occupation and use of the Unit, the Premises, the parking facilities or the Common Areas, and of general applicability to all tenants of the Building and the Unit (including all Landlord's Rules and Regulations which are applicable only to tenants which are using their leased premises for laboratory purposes, such as Tenant), provided that (i) Tenant receives reasonable prior written notice of such Landlord's Rules and Regulations, and (ii) the same are not inconsistent with the provisions of this Lease. In the event of a conflict between the Rules and Regulations and this Lease, this Lease shall control. Tenant and all Tenant Parties shall also comply with all rules and regulations adopted from time to time by the Primary Condominium Trust pursuant to the Condominium Documents (such rules and regulations, together with Landlord's Rules and Regulations, are referred to herein, collectively, as the "**Rules and Regulations**"). The initial Landlord's Rules and Regulations are set forth in **Exhibit H** attached hereto. Landlord's Rules and Regulations may also include, if any portion of the Building is being used as an animal facility at any time, provisions specifically relating thereto. Nothing contained in this Lease shall be construed to impose upon Landlord any duty or obligation to enforce the Rules and Regulations, or the terms, covenants or conditions in any other lease as against any other tenant and Landlord shall not be liable to Tenant for violation of the same by any other tenant or such other tenant's servants, employees, agents, contractors, visitors, invitees or licensees; *provided, however*, that Landlord shall enforce the Rules and Regulations in a non-discriminatory manner.

**9.08. Compliance With Insurance Requirements.** Tenant and all Tenant Parties shall at all times comply with (i) the terms of any policy of insurance maintained by Landlord or Tenant or the Primary Board and applicable to the Premises, the Unit, the Building or the Development, or any portion of any of the foregoing, provided that such terms either (x) are typical of those contained in insurance policies customarily issued with respect to properties similar to the Building or the Development, or (y) have been provided or described in writing to Tenant, (ii) all requirements of the issuer of any such policy, which requirements have been provided or described in writing to Tenant, and (iii) all orders, rules, regulations and other requirements of the National Board of Fire Underwriters (or any other body exercising similar functions, if any) (collectively, "**Insurance Requirements**").

**9.09. Floor Load; Heavy Machinery.** Tenant shall not place a load upon any floor of the Premises exceeding the floor load per square foot of area which such floor was designed to carry and which is allowed by Legal Requirements. Tenant acknowledges receipt from Landlord of the foregoing floor load information. Landlord reserves the right to reasonably prescribe the weight and position of all heavy machinery and mechanical equipment, which shall be placed so as to distribute the weight. Heavy machinery and mechanical equipment shall be placed and maintained by Tenant at Tenant's expense in settings sufficient in Landlord's reasonable judgment to absorb and prevent vibration, noise and annoyance. Tenant shall schedule and coordinate the installation or moving of any heavy machinery, heavy equipment, freight, bulky matter, or other oversize fixtures into or out of the Building with Landlord or its property manager. If such machinery, equipment, freight, bulky matter or fixtures requires special handling, Tenant agrees to employ only persons holding a Master Rigger's License to do said work, and that all work in connection therewith shall comply with applicable Legal Requirements. Any such moving shall be at the sole risk and hazard of Tenant and Tenant will defend, indemnify and save Landlord harmless against and from any liability, loss, injury, claim or suit resulting directly or indirectly from such moving. Proper placement of all such heavy machinery, etc., in the Premises shall be Tenant's responsibility.



**9.10. LEED/Energy Conservation Measures.** Tenant acknowledges that Landlord is required by the terms of certain of the permits issued by the Town of Watertown for the Development to design and construct the Unit so as to be certifiable at a Silver level in the Leadership in Energy and Environmental Design Core & Shell program (“LEED-CS”), and has designed and constructed the Building to achieve that goal. Tenant further acknowledges and agrees that such certification will require Tenant to comply with the following requirements in connection with the design, construction, use and operation of its Premises:

- (1) **Mandatory Leadership in Energy and Environmental Design (LEED) Tenant Compliance.** Tenant shall meet the following design and construction requirements in support of and in compliance with the LEED-CS prerequisites and credits attempted within the base-building LEED-CS certification application:
  - a. **EAp3 Fundamental Refrigerant Management:** Any additional HVAC & Refrigeration equipment and/or systems installed by Tenant must comply with the following: *“zero use of chlorofluorocarbon (CFC)-based refrigerants in new heating, ventilating, air conditioning and refrigeration (HVAC&R) systems. Small HVAC units (defined as containing less than 0.5 pounds (228 grams) of refrigerant) and other equipment, such as standard refrigerators, small water coolers and any other equipment that contains less than 0.5 pounds (228 grams) of refrigerant, are not subject to the requirements of this prerequisite”.*
  - b. **IEQp1 Minimum Air Quality Performance:** All mechanical ventilation systems installed by Tenant must “meet the minimum requirements of Sections 4 through 7 of ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality. Mechanical ventilation systems must be designed using the ventilation rate procedure or the applicable local code, whichever is more stringent.” Compliance must be demonstrated through calculations performed in alignment with the Ventilation Rate Procedure methodology as per section 6.2 of the ASHRAE 62.1-2007 standard.
- (2) **Mandatory Tenant Energy Conservation Measures (ECMs).** Tenant shall adhere to the following performance requirements to support and align with the Energy Conservation Measures incorporated in the base-building Core and Shell building systems and building envelope design and the LEED-CS whole building energy model:
  - a. **Lighting Power Density:** The installed interior lighting power in the Premises must be designed to be equal to or less than 0.75 Watts/SF using the Building Area Calculation Method as referenced in ASHRAE 90.1-2007.
  - b. **Lighting Controls:** Tenants are required to provide the following lighting controls with respect to any office space contained within their respective leased premises:
    - **Daylight dimming:** The Premises shall be designed to meet the following daylight dimming requirements:
      - Automatic daylight harvesting controls must be provided in all tenant spaces that are within 15 ft of the exterior walls.
      - All lighting in these areas must be automatically controlled based on available daylight and is dimmed from 100% to 30% of the light output with a proportional power input reduction (from 100% to 30% of the power input).

- The light level setpoint shall be 50 fc at a horizontal plane that is 2.5 ft above the floor.
- **Occupancy Sensors on Lighting:** Occupancy sensors must be provided for light control in all tenant spaces.

Beyond adhering to the requirements of the above listed LEED-CS prerequisites and credits, Tenant, at its own cost and expense, shall design and construct the Initial Tenant Work and all subsequent Tenant Work, and shall operate within the Premises, so as to render the Premises certifiable under the LEED 2009 program for Commercial Interiors at a Silver level. Even if third-party certification is not pursued, Tenant shall be required to comply with the aforementioned LEED prerequisites and credits. In addition to and without limiting any of the foregoing, Tenant shall comply with the LEED design, construction and performance requirements for Arsenal Yards set forth on **Exhibit I** attached hereto and incorporated herein by reference (the “**LEED Requirements**”).

**9.11. Emergency Generator.** Tenant shall have the right to tie into and use the emergency generator to be installed by Landlord as part of the Base Building Work for use by tenants of the Unit (the “**Unit Generator**”). Tenant shall be responsible, at its sole cost and expense, for installing, maintaining, repairing and replacing its connection between the Premises and the Unit Generator, and all associated cabling. Tenant shall be permitted to use up to an average of three (3) watts per square foot of usable area in the Premises from the Unit Generator, and at no time shall Tenant exceed that use limitation with respect to the Unit Generator. Except to the extent that Tenant ties into the Unit Generator as part of the Initial Tenant Work in accordance with the provisions of the Work Letter, installation of such tie-in and any related cabling, conduit and appurtenances will be governed by the applicable provisions of this Lease relating to Tenant Work. Tenant will submit to Landlord at least thirty (30) days prior to the proposed installation date Tenant’s proposed plans and specifications relating to the tie-in to the Unit Generator and all associated lines. Tenant may not commence any work to tie into the Unit Generator until it has received Landlord’s prior written approval (not to be unreasonably withheld, delayed or conditioned) of such plans and specifications. Tenant, at its sole cost and expense, shall comply with all applicable Legal Requirements and Title Matters and Landlord’s reasonable directives relating to the installation, operation, maintenance and repair of such tie-in, including (i) obtaining and maintaining (or causing to be obtained and maintained) and complying with the provisions of all applicable permits relating to the tie into and use of the Unit Generator. Tenant may not use the Unit Generator for any purpose other than solely in connection with Tenant’s occupancy of the Premises for the Permitted Use and in accordance with any applicable permit(s) pertaining to the Unit Generator. Except for permitted subtenants and assignees. Tenant may not use the Unit Generator to serve other occupant(s) of the Development.

#### **9.12. Rooftop Rights.**

(a) Tenant shall be permitted, in locations on the roof of the Building as approved by Landlord in writing in advance, to install, operate, maintain, repair and remove, all at Tenant’s sole cost and expense and for use solely by Tenant in connection with its business operations conducted in the Premises and not for use by non-occupant third parties, telecommunications and data processing equipment (including but not limited to satellite dishes, cell boosters and antennae), and related wiring from the roof to the interior portions of the Premises to the extent reasonably necessary (collectively, the “**Rooftop Communications Equipment**”), provided the same complies with all Legal Requirements, all Title Matters and the provisions of the Condominium Documents. No rooftop installations other than Rooftop Communications Equipment installed in accordance with the provisions of this Section 9.12 shall be permitted. The Rooftop Communications Equipment shall be screened from exterior view in a manner reasonably acceptable to Landlord and as may be required by the Town of Watertown. Tenant shall be responsible for all costs and expenses associated with or relating to the Rooftop Communications Equipment, including installation,

operation, maintenance, use, removal and insuring of the Rooftop Communications Equipment (same being deemed Tenant's personal property for purposes of this Lease), and shall reimburse Landlord any reasonable, actual out-of-pocket costs incurred by Landlord in connection therewith, including, but not limited to any costs for electric power that Tenant uses in the Building for the Rooftop Communications Equipment, as separately metered. Landlord shall have the right to permit other tenants of the Building to lease space on the roof of the Building for such other party's own rooftop antennae, satellite dishes and other telecommunications equipment to be used in the conduct of such tenant's business operations in the Building and not elsewhere, provided that (i) Tenant shall continue to have full access to the Rooftop Communications Equipment, (ii) Tenant's right to install, use, improve, add to and replace Rooftop Communications Equipment shall be non-exclusive and shall be shared on a pro rata basis with any such rights granted to other tenant(s) in the Buildings, (iii) Landlord shall not install, and shall prohibit the installation and/or operation by any other party of, any additional microwave dishes/earth satellite disks, antennae, towers and/or other structures on the roof which would, in Tenant's reasonable judgment, interfere with Tenant's use of the Rooftop Communications Equipment which is then in place.

(b) Prior to installing any Rooftop Communications Equipment, Tenant shall submit to Landlord for its approval plans and specifications that (i) specify in detail the design, location, size and operating frequency(ies) of the Rooftop Communications Equipment and (ii) are sufficiently detailed to allow for the installation of the Rooftop Communications Equipment in a good and workmanlike manner and in accordance with all Legal Requirements. Following Landlord's written approval of such plans, Tenant shall obtain all permits required for the installation and operation thereof, and copies of all such permits must be submitted to Landlord before Tenant begins to install the Rooftop Communications Equipment. Tenant shall be permitted to select a contractor of its choice to undertake the installation of the Rooftop Communications Equipment, subject to Landlord's approval. Tenant shall install all Rooftop Communications Equipment in a good and workmanlike manner, and shall maintain and use the Rooftop Communications Equipment in accordance with all applicable Legal Requirements, Title Matters and the provisions of the Condominium Documents. Tenant shall also have the right to install reasonably necessary conduit and sleeving from the roof to the points of connection within the Premises. Tenant shall be responsible for all costs of installation (including structural reinforcing or modifications required to be made to the roof in order to support Tenant's Rooftop Communications Equipment), repair, maintenance and removal with respect to the Rooftop Communications Equipment. Tenant shall thereafter maintain all permits necessary for the maintenance and operation of the Rooftop Communications Equipment while it is on the Building. Tenant shall maintain the Rooftop Communications Equipment in good repair and condition and in such a manner so as not to interfere in any material respect with any other satellite, antennae or other transmission facility on the roof or elsewhere in the Building which is or was installed and operating either prior to or after Tenant's installation of the Rooftop Communications Equipment. Tenant shall repair any damage to the Building caused by or relating to the Rooftop Communications Equipment, including that which is caused by its installation, maintenance, use or removal, and Tenant shall reimburse Landlord for any out-of-pocket costs and expenses incurred by Landlord for any actual damage to the Building, including any damage resulting from penetrations of the Roof with respect to such installation, maintenance or use.

(c) Unless otherwise expressly agreed by Landlord in writing as part of its approval of the installation of such Rooftop Communications Equipment, Tenant shall, at its expense, remove the Rooftop Communications Equipment prior to the expiration of the Term (or within thirty (30) days after the earlier termination of the Term). If Tenant fails to do so, Landlord may remove the Rooftop Communications Equipment and store or dispose of it in any manner Landlord deems appropriate without liability to Tenant; Tenant shall reimburse Landlord for all actual out-of-pocket costs and expenses incurred by Landlord in connection therewith within thirty (30) days after Landlord's request therefor.

(d) All work relating to the Rooftop Communications Equipment shall, at Landlord's written request, be coordinated with Landlord's roofing contractor so as not to void any warranty for the Roof.

**9.13. Neutralization System.** Landlord shall install as part of the Base Building Work an acid neutralization system for use by tenants of the Unit (the "**Neutralization System**") in a location within the Building selected by Landlord, together with piping to each floor of the Premises (piping on each floor of the Premises connecting the Premises to the Neutralization System shall be Tenant's responsibility). Tenant shall have the right to connect to and use the Neutralization System for the purposes for which it is intended only, which usage shall be at all times in accordance with the provisions of this Lease and with all applicable Legal Requirements (including the provisions of all such permits and approvals obtained by Landlord with respect to the Neutralization System) and best industry, laboratory and scientific standards and practices. Landlord shall obtain (and renew as applicable) all permits and approvals required by any Legal Requirement for the installation and use of the Neutralization System. Tenant shall be responsible, at its sole cost and expense, for complying with all such permits and approvals with respect to Tenant's use of the Neutralization System. Landlord shall operate, maintain, repair, service and replace the Neutralization System in accordance with all applicable Legal Requirements so as to keep the same in good operating condition, with the costs of such operation, maintenance, repair, servicing and replacement to be included within Operating Expenses to be paid by Tenant and other tenants of the Unit using the Neutralization System from time to time; *provided, however*, that Tenant shall be solely responsible for, at its sole cost and expense, costs and expenses (including reasonable attorneys' fees) arising out of or in any way related to any alleged or actual violation of any provision of this Lease or any applicable Legal Requirement by Tenant in connection with Tenant's use of the Neutralization System, which obligation of Tenant shall survive the expiration or earlier termination of this Lease.

## **ARTICLE 10: CONDITION AND MAINTENANCE OF PREMISES**

**10.01. Existing Conditions.** Tenant acknowledges that except for any express representations contained in this Lease, neither Landlord nor any person acting under or on behalf of Landlord has made any representation as to the condition of the Premises, the Unit, the Building or the Development, or the suitability of the Premises, the Unit, the Building or the Development for Tenant's intended use. Tenant represents and warrants that Tenant has made its own inspection and inquiry regarding the Premises, the Unit, the Building and the Development, and is not relying on any representations of Landlord or any broker or persons acting on behalf of Landlord other than as set forth in this Lease. Notwithstanding the foregoing, Landlord and Tenant understand and acknowledge that as of the date hereof the Building is under construction and that Landlord represents and warrants that the Building and its improvements will be completed substantially in conformity with the provisions of this Lease (including, but not limited to, **Exhibit A**, **Exhibit B**, **Exhibit C-1**) and the Work Letter, and in accordance, in all material respects, with all applicable Legal Requirements.

**10.02. No Landlord Liability.** Landlord shall not be liable for any damage or injury to the persons, property or business (including loss of revenue, profits or data) of Tenant or any Tenant Party, *provided, however*, that this **Section 10.02** shall not exempt Landlord from liability for Landlord's negligence or willful misconduct, or the negligence or willful misconduct of its agents, employees and/or contractors, or Landlord's breach of its obligations herein. This exemption shall apply whether such damage or injury is caused by (among other things): (i) fire, steam, electricity, water, gas, air, sewage, sewer gas or odors, snow, ice, frost or rain; (ii) the breakage, leakage, obstruction or other defects of pipes, faucets, sprinklers, wires, appliances, plumbing, windows, air conditioning or lighting fixtures or any other cause; (iii) explosion, electrical or electromagnetic emissions; (iv) any casualty or Taking; (v) theft; (vi) conditions in or about the Unit or the Building; or (vii) any act or omission of any other tenant. Tenant hereby agrees that, to the maximum extent permitted by law, all merchandise, furniture, fixtures and property of every kind, nature and description of Tenant or any Tenant Party which may be in or upon the Premises, the Unit,

the Building or the Development, shall be at the sole risk and hazard of Tenant, and that if the whole or any part thereof shall be damaged, destroyed, stolen or removed from any cause or reason whatsoever, no part of said damage or loss shall be charged to, or borne by, Landlord, except to the extent caused by Landlord's negligence or willful misconduct or the negligence or willful misconduct of its agents, employees or contractors, or Landlord's breach of its obligations herein.

**10.03. Landlord's Repair and Maintenance Obligations.** Subject to the provisions of Section 16.09, and except for damage caused by fire, other casualty or taking (which is dealt with below), and damage caused by the act or omission of Tenant or any Tenant Party, Landlord shall maintain, or cause to be maintained, the foundations of the Building, the exterior walls and windows and roof (including roof membrane) of the Unit, the Unit Generator, the Building Systems (including the HVAC, plumbing, electrical, mechanical and other systems, as well as the Neutralization System, serving the Premises in common with other portions of the Unit), to the extent not serving the Premises or another tenant's premises exclusively, the common areas and facilities of the Building, and any other items constituting Limited Common Elements of the Unit pursuant to the Condominium Documents (excluding those items that Tenant is responsible for under Article 11) in good order, condition and repair; provided that Tenant shall give Landlord written notice of the necessity for such repairs; and, provided further, that damage caused by the act or omission of Tenant or any Tenant Party shall, unless otherwise specified by Landlord, be promptly repaired by Tenant at its sole cost and expense. Landlord shall make any repairs or replacements to the Premises, the Unit (including the Unit Generator) or the Building, to the extent such repair or replacement was necessitated by Landlord's negligence or willful misconduct or the negligence or willful misconduct of its agents, employees and/or contractors, or Landlord's breach of its obligations herein, at its sole cost and expense and not to be reimbursed as an Operating Expense. In addition, Landlord shall enforce the applicable provisions of the Condominium Documents with respect to the maintenance, repair or replacement of the General Common Elements and all other buildings in the Development. Except to the extent caused by Landlord's negligence or willful misconduct or the negligence or willful misconduct of its agents, employees and/or contractors, or Landlord's breach of its obligations herein, Landlord shall not be obligated to maintain, repair or replace any interior windows, interior doors, plate glass, or the surfaces of walls within the Premises, or any fixtures, components or equipment located within the Premises or elsewhere which serve the Premises exclusively, all of which shall be Tenant's obligation. Tenant waives the benefit of any present or future law that provides Tenant the right to repair the Premises, the Unit or the Building at Landlord's expense or to abate or reduce the Rent or to terminate this Lease because of the condition of the Premises, the Unit or the Building, to the extent such benefit of law may be waived by Tenant. Except to the extent caused by the negligence or willful misconduct of Landlord or that of its agents, employees and/or contractors, Tenant shall not be entitled to any abatement of Rent, nor shall Landlord incur any liability, by reason of inconvenience, annoyance or injury to Tenant arising from any repairs, alterations, additions, replacements or improvements made by Landlord, or any related work undertaken by Landlord in accordance with the provisions of this Lease provided Landlord complies with the terms of Section 9.06 regarding access to the Premises. Notwithstanding the fact that Landlord may provide security services at the Unit or the Building at any time during the term of this Lease, (i) Tenant hereby releases Landlord from any claim for injury to persons or damage to property asserted by Tenant or any Tenant Party that is suffered or occurs in or about the Premises or in or about the Unit, the Building or the Development by reason of the act of any intruder or any other person, and (ii) Landlord shall not be deemed to owe Tenant or any other person any duty or standard of care as a result of Landlord's provision of such security services. All costs and expenses incurred by Landlord in connection with the performance of any obligation set forth in this Section 10.03 shall be included in Operating Expenses except to the extent otherwise expressly provided above in this Section.

#### 10.04. Tenant's Obligations.

(a) Repair and Maintenance. Except for work that Section 10.03 requires Landlord to do and subject to Section 16.09, Tenant, at its sole cost and expense: shall keep the Premises (including all Initial Tenant Work, other Tenant Work, Tenant Property, and all fixtures, systems and equipment now or hereafter on the Premises or elsewhere that exclusively serve the Premises regardless of whether or not the same are part of a Building System), together with any Limited Common Elements (or portions thereof) with respect to which Tenant has exclusive rights, and any interior windows, interior doors, interior plate glass, and the inner surfaces of walls within the Premises, in at least as good order, condition and repair as they are in on the Delivery Date or may be thereafter put in during the Term, reasonable wear and tear, damage caused by fire, other casualty or taking (which is dealt with below) and damage caused by the negligence or willful misconduct of Landlord, Landlord's agents, employees, or contractors excepted; shall keep in a secure and sanitary condition all trash and rubbish temporarily stored at the Premises; and shall make all repairs and replacements and do all other work necessary for the foregoing purposes, whether the same may be ordinary or extraordinary, foreseen or unforeseen. Without limitation, Tenant shall be responsible for the maintenance, repair and replacement of all plumbing, heating, ventilating and air-conditioning systems and other mechanical systems (whether or not part of the Building Systems) wherever located that exclusively serve the Premises, and Tenant shall secure, pay for, and keep in force contracts with appropriate and reputable service companies approved by Landlord (which approval shall not be unreasonably withheld, conditioned or delayed) providing for the regular maintenance of such systems to the extent that such systems exclusively serve the Premises. All repairs and replacements required to be made by Tenant hereunder shall be equal in quality and class to the original work. No storage shall be permitted outside of the Premises except as otherwise expressly provided in this Lease. Storage inside the Premises shall be provided in a manner not visible from outside the Premises.

(b) Landlord's Right to Cure. If Tenant does not perform any of its obligations under Section 10.04(a), Landlord upon ten (10) days' prior written notice to Tenant (or in the case of an emergency, with notice provided as soon as reasonably practicable) may perform such maintenance, repair or replacement on Tenant's behalf, and Tenant shall reimburse Landlord, as Additional Rent, for all costs reasonably incurred, together with an Administrative Charge (as defined in Section 13.02(e)), within ten (10) days of Landlord's written demand.

#### 10.05. Tenant Work.

(a) General. "**Tenant Work**" shall mean all work, demolition, installations, improvements, additions and alterations made by or on behalf of Tenant in or to the Premises or, when expressly permitted by Landlord in advance, on or to any other portion of the Unit or the Building. Without limitation, Tenant Work includes any penetrations in the walls, partitions, ceilings or floors and all attached carpeting, all signs visible from the exterior of the Premises, and all changes in the exterior appearance of the windows of the Premises (including shades, curtains and the like). All Tenant Work shall be subject to Landlord's prior written approval (which approval shall not be unreasonably withheld, conditioned, or delayed) and shall be arranged and paid for by Tenant, all as provided herein; *provided that* any interior non-structural Tenant Work (including any series of related Tenant Work projects) that (a) costs less than the "**Tenant Work Threshold Amount**" (which shall be \$50,000 in each instance or series of related projects, *provided that* from and after the point at which the aggregate cost of Tenant Work proposed by Tenant in any Lease Year exceeds \$100,000, all Tenant Work proposed during such Lease Year shall be deemed to exceed the Tenant Work Threshold Amount and shall require Landlord's prior written approval), (b) does not adversely affect any structural component of the Building or the Unit, or any elevators, fire-safety, telecommunications, curtain wall, electrical, heating, ventilation, plumbing or any other mechanical system of the Unit or the Neutralization System (collectively, the "**Building Systems**"), (c) does not adversely affect any penetrations in or otherwise adversely affect any walls, floors, roofs, or other structural elements of the Building or the Unit, or the curtain wall, (d) does not involve the removal of more than a de minimis amount of the laboratory furnishings, laboratory equipment or laboratory machinery which was installed as

part of the Initial Tenant Work, except as such removal may be otherwise permitted in accordance with the provisions of the second grammatical paragraph of Section 10.06, and (e) does not include any signs visible from the exterior of the Premises or any change in the exterior appearance of the windows in the Premises (including shades, curtains and the like) shall not require Landlord's prior approval if Tenant delivers the Construction Documents (as defined in Section 10.05(b)) for such work to Landlord at least five (5) Business Days' prior to commencing such work. Without limiting Landlord's rights hereunder, Landlord shall not be deemed unreasonable for withholding its approval as to any Tenant Work which would require unusual expense to re-adapt the Premises or any portion thereof to typical laboratory use upon the termination or expiration of this Lease. In any event, non-structural cosmetic work such as painting, carpeting and wall coverings within the Premises ("**Cosmetic Work**") shall not require Landlord's consent or be included in the calculation of the Tenant Work Threshold, and no prior notice to Landlord of such work is required. Whether or not Landlord's approval is required, Tenant shall neither propose nor effect any Tenant Work that in Landlord's reasonable judgment (i) adversely affects any structural component of the Building or the Unit, (ii) materially affects any Building System, (iii) affects the exterior or the exterior appearance of the Unit or the Building or common areas within or around the Building, (iv) includes the installation of equipment that will have an unreasonable acoustic impact on other tenants of the Building or the Unit when compared to similar equipment in first-class laboratory/research and development buildings, (v) diminishes the value of the Premises, the Unit or the Building, (vi) involves the removal of more than a de minimis amount of the laboratory furnishings, laboratory equipment or laboratory machinery which was installed as part of the Initial Tenant Work, except as such removal may be otherwise permitted in accordance with the provisions of the second grammatical paragraph of Section 10.06, or (vii) requires any unusual expense to readapt the Premises or any portion thereof to typical laboratory use upon the termination or expiration of this Lease. Any disputes regarding the scope and estimated cost of the work necessary to readapt the Premises or any portion thereof to typical laboratory use upon the termination or expiration of this Lease shall be resolved pursuant to Section 16.17. Prior to commencing any Tenant Work affecting air disbursement from ventilation systems serving the Premises, including the installation of Tenant's exhaust systems, Tenant shall provide Landlord with a third-party report from a consultant, and in a form, reasonably acceptable to Landlord, showing that such work will not adversely affect the ventilation systems of the Unit (or of any other tenant in the Unit) and shall, upon completion of such work, provide Landlord with a certification reasonably satisfactory to Landlord from such consultant confirming that no such adverse effects have resulted from such work. Landlord shall have the right to require Tenant to provide to Landlord from time to time while Tenant's Work is being performed, periodic lien waivers in statutory form from Tenant's Contractor and such subcontractors and suppliers as Landlord may reasonably designate from time to time.

(b) Construction Documents. No Tenant Work, other than Cosmetic Work, shall be effected except in accordance with complete, coordinated construction drawings and specifications ("**Construction Documents**") prepared in accordance with Exhibit J attached hereto. Before commencing any Tenant Work requiring Landlord's approval hereunder, Tenant shall obtain Landlord's prior written approval of the Construction Documents for such work, which approval shall not be unreasonably withheld, conditioned or delayed. Landlord shall be given a reasonable opportunity to consult with Tenant and review plans for any work under this Lease requiring Landlord's consent as they are being prepared. The Construction Documents shall be prepared by an architect ("**Tenant's Architect**") registered in the Commonwealth of Massachusetts and experienced in the construction of tenant space improvements in comparable buildings in the area where the Premises are located and, if the value of such Tenant Work will equal or exceed the Tenant Work Threshold Amount or will affect any Building System, the identity of Tenant's Architect (and also engineers if such work will affect any Building System) shall be approved by Landlord in advance, such approval not to be unreasonably withheld, conditioned or delayed. Tenant shall be solely responsible for the liabilities associated with and expenses of all architectural and engineering services relating to Tenant Work and for the adequacy, accuracy, and completeness of the Construction Documents even if approved by Landlord (and even if Tenant's Architect has been otherwise engaged by Landlord in

connection with the Base Building Work or the Initial Tenant Work). Construction Documents shall comply with all Legal Requirements and Title Matters applicable to the Development or the Premises, or Tenant's use thereof, as well as with the provisions of the Condominium Documents. Construction Documents shall set forth in detail the requirements for construction of the Tenant Work and shall show all work necessary to complete the Tenant Work, including all cutting, fitting, and patching and all connections to the mechanical, electrical, and plumbing systems and components of the Unit or the Building. Submission of the Construction Documents to Landlord for approval shall be deemed a warranty by Tenant that all Tenant Work described in the Construction Documents (i) complies with all applicable Legal Requirements, Title Matters and the Condominium Documents, (ii) does not adversely affect any structural component of the Unit or the Building, (iii) is compatible with and does not adversely affect the Building Systems, (iv) conforms to floor loading limits specified by Landlord, and (v) with respect to all materials, equipment and special designs, processes or products, does not infringe on any patent or other proprietary rights of others. The Construction Documents shall comply with Landlord's requirements for the uniform exterior appearance of the Unit, including the use of Landlord's standard window blinds and standard light fixtures. Landlord's approval of Construction Documents shall signify only Landlord's consent to the Tenant Work shown and shall not result in any responsibility of Landlord concerning compliance of the Tenant Work with any Legal Requirements or Title Matters, or coordination or compatibility with any component or system of the Unit or the Building, or the feasibility of constructing the Tenant Work without damage or harm to the Unit or the Building, all of which shall be the sole responsibility of Tenant.

If, as a result of any Tenant Work performed or proposed to be performed by Tenant, Landlord is or will be obligated to comply with any Legal Requirement (including the Americans With Disabilities Act) which was not previously applicable to the Premises or the Unit (or which was previously applicable in a different manner or to a different extent), and such compliance requires Landlord to make any improvement or alteration to any portion of the Unit or the Building, then (i) when Landlord makes such determination prior to the performance of such Tenant Work, as a condition to Landlord's consent, Landlord shall have the right to require Tenant to pay to Landlord prior to the performance of such Tenant Work, the entire cost of any improvement or alteration Landlord is obligated to complete by such Legal Requirement, or (ii) when Landlord makes such determination after such Tenant Work has commenced (regardless of whether or not the same has been completed), Tenant shall pay to Landlord, as Additional Rent, within ten (10) days of demand therefor by Landlord, the entire cost of any improvement or alteration Landlord is obligated to complete by reason of such Legal Requirement.

(c) **Performance.** The identity of any person or entity (including any employee or agent of Tenant) performing any Tenant Work ("**Tenant Contractor**") requiring Landlord's approval hereunder shall be subject to Landlord's prior written approval, which approval shall not be unreasonably withheld, conditioned or delayed. Once any Tenant Contractor has been approved, the same Tenant Contractor may thereafter be used by Tenant for the same type of work until Landlord notifies Tenant that such Tenant Contractor is no longer approved. Tenant shall procure at Tenant's expense all necessary permits and licenses (and shall provide copies thereof to Landlord) before undertaking any Tenant Work, but shall not take any plans for Tenant Work to any governmental authority for review or approval without Landlord's prior written authorization in each instance (which prior authorization shall not be unreasonably withheld, conditioned or delayed). Tenant shall perform (or shall cause Tenant's Contractor to perform) all Tenant Work at Tenant's risk, in compliance with the Rules and Regulations, all applicable Legal Requirements and Insurance Requirements, and the provisions of the Condominium Documents, and in a good and workmanlike manner, employing new materials of good quality and producing a result at least equal in quality to the other parts of the Premises. When any Tenant Work is in progress (including, for this purpose, the Initial Tenant Work), Tenant shall cause to be maintained insurance as described in the Tenant Work Insurance Schedule attached hereto as **Exhibit K** and such other insurance as may be reasonably required by Landlord covering any additional hazards due to such Tenant Work. If the Tenant Work in any instance requires Landlord's approval hereunder, Tenant shall reimburse Landlord within thirty (30) days of



demand, as Additional Rent, for its reasonable third-party out-of-pocket costs of reviewing the proposed Tenant Work and inspecting the performance of such work (as well as all costs imposed upon Landlord by any mortgagee which reviews and/or inspects the same). During the performance of any Tenant Work, representatives of Tenant and Landlord shall meet periodically (not less frequently than monthly) to review and discuss the progress of the work and the schedule for the performance of the remaining work.

In addition to and without limiting any of the foregoing, any and all Tenant Work shall be subject to, and performed in accordance with: (i) the LEED Requirements set forth on **Exhibit I** attached hereto and incorporated herein by reference, and (ii) Landlord's construction, repair and remodeling guidelines for Tenant Work in the Building, as the same may be amended and supplemented by Landlord from time to time by written notice to Tenant (collectively, "**Landlord's Guidelines for Tenant Work**"). In the event that the Landlord's Guidelines for Tenant Work impose more stringent requirements or a higher standard than any other applicable provision of this Lease (including the other Exhibits attached hereto), the provisions of the Landlord's Guidelines for Tenant Work shall control. A copy of the Landlord's Guidelines for Tenant Work in effect on the date hereof is attached hereto as **Exhibit L** and incorporated herein by reference.

Tenant shall cause each Tenant Contractor (i) to comply with, and to do nothing to impair, any guaranties or warranties applicable to any portion or component of the Unit or the Building of which Tenant is made aware, and (ii) to use commercially reasonable efforts to avoid delaying or otherwise interfering with the work of any contractor of Landlord or of any other tenant. Each Tenant Contractor working on the roof of the Unit shall coordinate with Landlord's roofing contractor, shall comply with its requirements and shall not violate existing roof warranties. Tenant shall indemnify and hold the Indemnitees harmless from any claim, loss or expense based upon injury to persons or damage to property to the extent arising from the act or omission of Tenant's Contractor or any subcontractor or supplier of any tier, while on or about the Premises, the Unit, the Building or elsewhere in the Development, except to the extent caused by the negligence or willful misconduct of Landlord or Landlord's agents, employees and/or contractors.

(d) **Payment.** Tenant shall pay the entire cost of all Tenant Work so that the Premises (including Tenant's leasehold) and all other portions of the Development shall always be free of liens for labor or materials; *provided, however*, that in the event that there is a dispute over whether payment is due and payable, Tenant may withhold payment so long as it files and records a bond sufficient to discharge any potential lien arising from the dispute or other security acceptable to Landlord and its mortgagees in their reasonable discretion within ten (10) Business Days after Tenant has notice from any source of such dispute. If any such lien is filed that is claimed to be attributable to Tenant or persons acting under Tenant, then Tenant shall promptly (and always within ten (10) Business Days) discharge the same by payment or filing any necessary bond. In the event that Tenant fails to discharge such lien within the time period set forth above, Landlord shall have the right, but not the obligation, to bond over or otherwise discharge such lien as further set forth in **Section 13.02** of this Lease; *provided, however*, that no notice or cure period shall apply. In such case Tenant shall pay Landlord's reasonable costs of discharging such lien within ten (10) Business Days of Landlord's written demand as Additional Rent.

(e) **Other.** Tenant must schedule and coordinate all aspects of work with the property manager or other person or persons designated from time to time by Landlord, and shall make prior arrangements for elevator or temporary hoist use. Landlord shall provide Tenant and all other tenants requiring the use of freight elevators and temporary hoists with joint access and the parties shall use reasonable efforts to coordinate such joint access to avoid conflicts. If an operating engineer is required by any union regulations, Tenant shall pay for such engineer. If shutdown of risers and mains for electrical, mechanical or plumbing work is required, such work shall be supervised by Landlord's representative at Tenant's cost. If special security arrangements must be made (e.g., in connection with work outside Normal Business Hours), Tenant shall pay the actual cost of such security. No work shall be performed in Unit or Building

mechanical or electrical equipment rooms without Landlord's approval, which approval shall not be unreasonably withheld, conditioned or delayed, and all such work shall be performed under Landlord's supervision. Except in case of emergency, at least five (5) days' prior notice must be given to the property manager prior to the proposed shutdown of fire, sprinkler or other alarm systems, and in case of emergency, prompt notice shall be given. In the event that such work unintentionally alerts the Fire or Police Department or any private alarm monitoring company through an alarm signal, Tenant shall be liable for any fees or charges levied by the Fire or Police Department or any private alarm monitoring company in connection with such alarm except to the extent such alert was caused by Landlord or Landlord's agents, employees or contractors. All demolition, installations, removals or other work that is reasonably likely to inconvenience other tenants of the Unit or the Building or disturb their normal business operations must be scheduled with the Building manager at least five (5) days in advance.

Any requirements of any Tenant Contractor for services from Landlord or Landlord's Contractor, such as hoisting, electrical or mechanical needs, shall be paid for within thirty (30) days of billing after such costs are incurred, and arranged between such Tenant Contractor and Landlord or Landlord's contractor. Tenant shall cause each Tenant Contractor performing work on the Premises to clean up regularly and remove its debris from the Premises, the Building and the Land. If any Tenant Contractor fails so to clean up, then Landlord may, after giving Tenant at least twenty-four (24) hours' prior written notice, cause its contractor to clean up and remove debris, and Tenant shall pay the reasonable out-of-pocket costs of such cleanup and removal upon demand.

Each contract with a Tenant Contractor shall require such Tenant Contractor to take all reasonable steps to assure that any work is carried out without disruption from labor disputes arising from whatever cause, including disputes concerning union jurisdiction and the affiliation of workers employed by said Tenant Contractor or its subcontractors. Tenant shall be responsible for, and shall reimburse Landlord, as Additional Rent, for, all actual costs and expenses, including reasonable attorneys' fees and costs incurred by Landlord in connection with the breach by any Tenant Contractor of such obligations. If Tenant does not promptly resolve any labor dispute caused by or relating to any Tenant Contractor, Landlord may in its sole discretion request that Tenant remove such Tenant Contractor from the Premises, and if such Tenant Contractor is not promptly removed, Landlord may prohibit such Tenant Contractor from entering the Development.

Upon completion of any Tenant Work and as a condition of such completion, Tenant shall give to Landlord (i) a permanent certificate of occupancy (if one is legally required), and any other final governmental approvals required for such work, (ii) copies of "as built" plans (other than for Cosmetic Work) in modifiable AutoCAD format and all construction contracts, and (iii) proof of payment for all labor and materials in the form of a final statutory lien waiver from Tenant's Contractor or such other reasonable evidence as Landlord may require.

(f) Removal at Conclusion of Term. Except as set forth in the last sentence of this paragraph below, any Tenant Work that is permanently affixed to the Premises or affixed in a manner so that it cannot be removed without causing other than incidental and repairable damage to the Premises shall become property of the Landlord at the termination of occupancy as provided herein. If Landlord so notifies Tenant in writing at the time Landlord approves plans for any Tenant Work (or, if Landlord's consent to the plans is not required, at the time Landlord receives notice of such work), Tenant shall remove such or all Tenant Work as so specified prior to the conclusion of the Term. Tenant Work that may be removed with only incidental and/or repairable damage, may be removed by Tenant in any case provided such disturbance or damage is restored and repaired so that the Premises are left in a clean and fully functional condition at least as good as they were in at the commencement of the Term or as they may be put in thereafter, reasonable wear and tear, damage caused by fire, other casualty or taking, and damage caused by the negligence or willful misconduct of Landlord, Landlord's agents, employees, or contractors excepted;

provided, however, that notwithstanding anything to the contrary contained in this Lease, in the event that this Lease is terminated by reason of the occurrence of an Event of Default prior to the expiration of the Term, all of the laboratory furnishings, laboratory equipment and laboratory machinery installed as part of the Initial Tenant Work shall remain in the Premises unless Landlord agrees otherwise in writing at the time of such termination.

(g) **Initial Tenant Work.** The provisions of this Section 10.05 shall not apply to Initial Tenant Work except to the extent otherwise expressly provided in this Lease or in the Work Letter.

**10.06. Condition Upon Termination.** At the expiration or earlier termination of the Term, Tenant (and all persons claiming by, through or under Tenant) shall without the necessity of notice deliver the Premises (including all Initial Tenant Work, none of which shall be removed by Tenant except as provided in the next grammatical paragraph of this Section 10.06, and all other Tenant Work to the extent provided in Section 10.05(f) of this Lease) broom-clean, in compliance with the requirements of Section 10.07 and in good order, repair and condition, excepting only damage caused by fire, other casualty, or taking, reasonable wear and tear, and damage caused by the negligence or willful misconduct of Landlord, Landlord's agents, employees, or contractors. The Premises shall be surrendered to Landlord free and clear of any mechanic's liens (or any similar lien related to labor or materials) or other lien or encumbrance (excluding liens or encumbrances existing as of the date hereof and liens or encumbrances granted by Landlord or related to work performed by or for Landlord) against any part of the Premises, equipment and/or any Initial Tenant Work or any other Tenant Work to be surrendered with the Premises. As part of such delivery, Tenant shall also provide all keys (or lock combinations, codes, access cards, passwords relating to BMS equipment or software, or electronic passes) to the Premises to Landlord; remove all signs wherever located; and, except as set forth in Section 10.05(f), remove all Tenant's Property and other personal property whether or not bolted or otherwise attached. As used herein, "**Tenant's Property**" shall mean all trade fixtures, furnishings, equipment, inventory, cabling of any type, and other personal property owned by Tenant or any person acting under Tenant at the Premises. Tenant shall repair all damage that results from such removal and restore the Premises substantially to a fully functional and tenantable condition (including the filling of all floor and wall holes, the removal of all disconnected wiring back to junction boxes and the replacement of all damaged ceiling tiles). Any property not so removed shall be deemed abandoned, shall at once become the property of Landlord, and may be disposed of in such manner as Landlord shall see fit; and Tenant shall pay the reasonable cost of removal and disposal to Landlord within ten (10) days of Landlord's written demand.

Notwithstanding the preceding provisions of this Section 10.06, provided that no Event of Default has occurred and is then continuing, then at any time after the expiration (but not the earlier termination) of the Initial Term, Tenant shall be permitted to remove pieces of laboratory equipment which are not permanently affixed to the Building (e.g., not lab benches, fume hoods or mechanical equipment which are so affixed), and whose removal will not cause material damage to the Building, to the extent that Tenant spent in excess of the Landlord's Allowance on the Initial Tenant Work (excluding portions of the Landlord's Allowance allocated to payment of design costs, Landlord's construction management oversight fee, and other so-called "soft" costs). Promptly following the final completion of the Initial Tenant Work, Tenant shall provide to Landlord (i) a reasonably detailed breakdown of all costs incurred by Tenant in connection with the design and construction of the Initial Tenant Work (whether such costs were paid out of the Landlord's Allowance or out of Tenant's own funds or otherwise), together with such supporting documentation therefor as Landlord may reasonably request, and (ii) a schedule of the items of laboratory equipment which Tenant desires to remove pursuant to this paragraph after the expiration of the Initial Term together with the cost paid by Tenant for each such item. By way of illustration only and not in limitation of the foregoing, if (x) the cost to design and construct the Tenant Work is \$300/rsf, (y) the Landlord's Allowance is \$200/rsf, and (z) \$20/rsf of the Landlord's Allowance is spent on design costs, construction management oversight fee and other soft costs, then, subject to the provisions of this paragraph, Tenant would be permitted to remove specified pieces of laboratory equipment costing not more than: \$300/rsf (total cost) - \$200/rsf (Landlord's Allowance) - \$20/rsf (portion of Landlord's Allowance spent on soft costs) = \$80/rsf.

The provisions of this Section shall survive the expiration or (with respect to the first grammatical paragraph of this Section only) the earlier termination of the Term.

**10.07. Decommissioning of the Premises.** Prior to the expiration of this Lease (or within thirty (30) days after any earlier termination), Tenant shall clean and otherwise decommission all interior surfaces (including floors, walls, ceilings, and counters), piping, supply lines, waste lines, tanks, and plumbing in or serving the Premises, and all exhaust or other ductwork in or serving the Premises, in each case that has carried, released or otherwise been exposed to any Hazardous Materials, and shall otherwise clean the Premises so as to permit the report hereinafter called for by this Section 10.07 to be issued. Prior to the expiration of this Lease (or within thirty (30) days after any earlier termination), Tenant, at Tenant's expense, shall obtain and provide to Landlord a report addressed to Landlord and Landlord's designees prepared by a reputable licensed environmental engineer or certified industrial hygienist that is designated by Tenant and acceptable to Landlord in Landlord's reasonable discretion, which report shall be based on such person's inspection of the Premises (including visual inspection, airborne and surface monitoring, and, if Tenant or any Tenant Party at any time stored or used any radioactive materials in the Premises, Geiger counter evaluation), and shall show:

(i) that the Hazardous Materials brought onto the Premises by or for the use by Tenant or any Tenant Party, if any, existing prior to such decommissioning, have been removed as necessary so that the interior surfaces of the Premises (including floors, walls, ceilings, and counters), piping, supply lines, waste lines, tanks, and plumbing, and all such exhaust or other ductwork in and/or serving the Premises, may be reused by a subsequent tenant or disposed of in compliance with applicable Environmental Laws without taking any special precautions for Hazardous Materials, without incurring special costs or undertaking special procedures for demolition, disposal, investigation, assessment, cleaning or removal of Hazardous Materials, and without incurring regulatory compliance requirements or giving notice pursuant to Environmental Laws;

(ii) if Tenant or any Tenant Party at any time stored or used any radioactive materials in the Premises, that the Premises (and all piping, supply lines, waste lines, tanks, and plumbing, and all exhaust or other ductwork in and/or serving the Premises), have been decommissioned in accordance with the regulations of the U.S. Nuclear Regulatory Commission and/or the Massachusetts Department of Public Health for the control of radiation, and have accordingly been released for unrestricted use by the Radiation Control Program of the Massachusetts Department of Public Health for the control of radiation; and

(iii) (that the Premises may be reoccupied for laboratory/research and development use, demolished or renovated without taking any special precautions for Hazardous Materials, without incurring special costs or undertaking special procedures for disposal, investigation, assessment, cleaning or removal of Hazardous Materials, and without incurring regulatory requirements or giving notice pursuant to Environmental Laws.

For purposes of the preceding clauses (i) and (iii) "special costs" or "special procedures" shall mean costs or procedures, as the case may be, that would not be incurred but for the nature of the Hazardous Materials introduced to the Premises by or for the use by Tenant or any Tenant Party, as Hazardous Materials instead of non-Hazardous Materials. The report shall include reasonable detail concerning the clean-up locations, the tests run and the analytic results.

In addition, Tenant shall provide to Landlord prior to the expiration of the Term (or within thirty (30) days after any earlier termination), a copy of its most current chemical waste removal manifest and a certification from Tenant executed by an officer of Tenant that no Hazardous Materials or other potentially dangerous or harmful chemicals brought onto the Premises by Tenant or any Tenant Party from and after the date that Tenant first took occupancy of the Premises remain in the Premises.

If Tenant fails to perform its obligations under this Section 10.07, then without limiting any other right or remedy, Landlord may, on five (5) Business Days' prior written notice to Tenant, perform such obligations at Tenant's expense, and Tenant shall within ten (10) days of demand reimburse Landlord, as Additional Rent, for all reasonable out-of-pocket costs and expenses incurred by Landlord in connection with such work, together with an Administrative Charge, as defined in Section 13.02. In addition, at Landlord's election, Landlord may inspect the Premises and the Land for Hazardous Materials at Landlord's cost and expense within sixty (60) days of Tenant's surrender of the Premises at the expiration or earlier termination of this Lease. Tenant shall pay for all such costs and expenses incurred by Landlord in connection with such inspection if such inspection reveals that a release or threat of release of Hazardous Materials exists (a) at the Premises (except to the extent resulting from the acts or omissions of Landlord or Landlord's agents, employees or contractors, or occupants of other portions of the Building), or (b) elsewhere on the Land as a result of the acts or omission of Tenant, its officers, employees, contractors, or agents.

The provisions of this Section 10.07 shall survive the expiration of the Term or the earlier termination of this Lease.

## **ARTICLE 11: DAMAGE OR DESTRUCTION; CONDEMNATION**

**11.01. Damage or Destruction of Premises.** If the Premises, the Unit or the Building or any part thereof shall be damaged or destroyed by fire or other casualty (a "casualty"), or ordered to be demolished by the action of any public authority in consequence of a casualty, or taken by any exercise of the right of eminent domain, Tenant shall immediately give notice thereof to Landlord. Unless this Lease is terminated as provided herein, this Lease shall remain in full force and effect and Landlord shall proceed (or shall cause the Primary Board to proceed) with diligence to repair or cause to be repaired such damage so as to restore the Premises, the Building and access thereto, or what may remain thereof (including the Initial Tenant Work but excluding any other Tenant Work), as nearly as practicable to the condition they were in immediately prior to such damage, destruction or taking, subject to then applicable Legal Requirements and Title Matters, but neither Landlord nor the Primary Board shall be required to expend in such repair or rebuilding more than the proceeds of insurance or award of damages, if any, recovered or recoverable with respect to such damage, destruction or taking (plus, in the case of casualty, the amount of any insurance deductibles (which shall be deemed Operating Costs)), less Landlord's (or the Primary Board's) reasonable expenses incurred in collecting such proceeds or award, as the case may be, but in the case of damage or destruction only to the extent Landlord was carrying the insurance required to be carried pursuant to this Lease at the time of such damage or destruction. All such repairs made necessary by any negligent act or omission or any willful misconduct of Tenant shall be made by Landlord (or the Primary Board) at Tenant's expense to the extent that the cost of such repairs is not covered by insurance proceeds available therefor (including the payment by Tenant of any applicable deductible amount). Landlord shall not be liable for delays in the making of any such repairs that are due to Force Majeure, nor shall Landlord be liable for any inconvenience or annoyance to Tenant or injury to the business of Tenant resulting from delays in repairing such damage. All repairs to and replacements of Tenant Property and any Tenant Work other than the Initial Tenant Work shall be made by and at the expense of Tenant, which work Tenant shall promptly commence as soon as practicable and thereafter prosecute diligently to completion.

**11.02. Right to Terminate in Event of Casualty.** In case (a) the Building in which the Premises are situated is destroyed or so damaged by fire or casualty insured under any fire and extended coverage insurance policy carried by Landlord or the Primary Board as to render more than seventy percent (70%) of the square footage of the Building, or seventy percent (70%) of the square footage of the Unit, untenable, or (b) more than fifty percent (50%) of the square footage of the Premises is so damaged or destroyed as to be rendered untenable, or (c) the Premises or the Unit or all reasonable means of access thereto are destroyed or materially damaged during the last two (2) years of the Term, then, and in any of such cases, Landlord or Tenant (as to Tenant, in the events covered by clauses (b) and (c) only) may at its election, exercisable by notice given to the other within thirty (30) days after such destruction or damage, terminate this Lease as of the date designated by Landlord or Tenant in such notice, which designated date shall not be less than fifteen (15) days nor more than thirty (30) days after the date of such notice. In case (x) the Premises, the Unit or the Building shall be destroyed or materially damaged by any casualty other than one covered by such insurance policy (provided that at the time of such damage or destruction Landlord carried the insurance required by this Lease), or (y) if Landlord reasonably estimates that the cost to repair the same will exceed the amount of proceeds actually received by Landlord or the Primary Board from Landlord's or the Primary Board's insurance by more than \$100,000.00, then, and in any of such cases, Landlord may at its election, exercisable by notice given to Tenant within sixty (60) days after such destruction or damage, terminate this Lease as of the date designated by Landlord in such notice, which designated date shall be not less than fifteen (15) days nor more than thirty (30) days after the date of such notice.

If Landlord does not so elect to terminate this Lease and instead elects to repair or rebuild the Premises, Landlord shall specify pursuant to written notice to Tenant the time within which repairs or construction will be completed (Landlord agreeing to make commercially reasonable efforts to provide such notice to Tenant within sixty (60) days following such casualty), and in the event that Landlord estimates that the Premises cannot reasonably be repaired or restored within two hundred seventy (270) days following such casualty, then Tenant shall have the option within thirty (30) days after the receipt of such notice from Landlord to elect to terminate this Lease by written notice to Landlord. If Tenant does not so elect to terminate this Lease by written notice to Landlord within said thirty (30) day period, then this Lease shall continue in full force and effect and Landlord shall restore (or cause to be restored) the Premises, or what may remain thereof (including the Initial Tenant Work but excluding any other Tenant Work), as nearly as practicable to the condition they were in immediately prior to such damage, destruction or taking, subject to then applicable Legal Requirements and Title Matters, within the time specified in Landlord's aforesaid notice and Tenant shall be entitled to an abatement of Base Rent as hereinafter set forth. If Landlord fails to substantially complete restoration of the Premises within the specified time (subject to Force Majeure or any delays caused by Tenant), then Tenant at its election may terminate this Lease and quit the Premises at any time after the time specified by Landlord for substantial completion as aforesaid but prior to Landlord's substantial completion of the restoration, upon sixty (60) days' advanced written notice to Landlord; *provided, however*, if Landlord substantially completes such restoration within said sixty (60) day period, then Tenant's election to terminate this Lease shall be null and void and this Lease shall continue in full force and effect in accordance with the terms hereof. Tenant acknowledges and agrees that if other portions of the Unit are damaged by casualty, and this Lease is not terminated in accordance with its terms, Landlord shall only be obligated to restore (or cause to be restored) such other portions of the Unit as are necessary for Tenant to use and enjoy the Premises, including the exterior façade of the Premises, access thereto and the parking areas required to provide Tenant with the number of parking spaces provided in Section 2.02(c) hereof in reasonable proximity to the Building.

**11.03. Termination in Event of Taking.** If all the Premises are taken by eminent domain this Lease shall terminate when Tenant is required to vacate the Premises. If by a taking (i) the floor area of the Premises is reduced by more than fifteen percent (15%) thereof, or (ii) all access to the Premises from the adjacent public right of way is taken and reasonably comparable alternative access is not made available within sixty (60) days of such taking, then, in either such case, this Lease may at the option of either party be terminated, as of the date when Tenant is required to vacate the portion of the Premises so taken or upon the expiration of said sixty (60) day period, as the case may be, by notice given to the other not more than thirty (30) days after the date on which the party desiring to terminate receives notice of the taking in the case of situation (i) above, or within thirty (30) days after the expiration of said sixty (60) day period in the case of situation (ii) above. If by a taking the floor area of the Unit in which the Premises are situated is reduced by more than twenty-five percent (25%), this Lease may at the option of Landlord or Tenant be terminated, as of the date when the tenants or occupants of the portion of said Unit so taken are required to vacate the same, by giving notice to the other not more than thirty (30) days after the date on which Landlord receives notice of the taking.

**11.04. Landlord Reserves Award.** Landlord reserves and excepts all rights to awards for damages to the Unit and the Premises and the leasehold hereby created now accrued or hereafter accruing (not including a separate award for Tenant's moving expenses, if any, or awards for the unamortized value of the non-removable Initial Tenant Work installed by Tenant less the amount of the Tenant Allowance) as long as such separate awards do not reduce, delay or hinder Landlord's award) by reason of any exercise of the right of eminent domain, or by reason of anything lawfully done in pursuance of any public or other authority; and by way of confirmation Tenant grants to Landlord all Tenant's rights to such awards (except as expressly reserved above in this Section 11.04) and covenants to execute and deliver such further instruments of assignment thereof as Landlord may from time to time request. Tenant's aforesaid leasehold improvements shall be amortized on a straight line basis over the initial term of this Lease.

**11.05. Abatement of Rent.** In the event of any casualty or taking of the Premises (or the Unit or Building which actually affects the Premises), a just proportion of the Base Rent payable hereunder, according to the nature and extent of the injury, shall be abated until completion of repairs or rebuilding or termination of this Lease, as the case may be; and in the case of a taking which permanently reduces the area of the Premises, or if following a casualty the restored Premises are smaller in area than the original area of the Premises, a just proportion of the Base Rent shall be abated for the remainder of the Term.

**11.06. Risk of Loss.** The risk of loss or damage to property of the Tenant on or about the Premises will be borne solely by the Tenant and neither the Landlord nor any other tenant will have any liability for loss thereof or damage thereto, except as otherwise expressly set forth in this Lease.

## ARTICLE 12: ASSIGNMENT AND SUBLETTING

**12.01. Landlord's Consent Required.** Except as set forth in this Article, Tenant shall not assign this Lease, or Sublease the Premises or any portion thereof, or advertise the Premises for assignment or Sublease, or permit the occupancy of all or any portion of the Premises or the use of any portion of the Initial Tenant Work by any person other than Tenant, or assign or otherwise transfer or permit the assignment or transfer of any ownership interest (direct or indirect) in Tenant which effects a change of control of Tenant (whether in one transaction or in a series of related transactions), including transfer by mortgage, pledge or other encumbrance (whether of all or any portion of Tenant's interest under this Lease, or of any such ownership interest (direct or indirect) in Tenant (each of the foregoing actions are collectively referred to as a "**Transfer**"), without obtaining, on each occasion, the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed, provided that Tenant complies with the provisions of this Article; *provided, however*, that Tenant shall not mortgage, pledge, grant a security interest in, or otherwise encumber all or any portion of the Initial Tenant Work or any equipment, machinery, trade fixture or other property paid for in whole or in part by any portion of Landlord's Allowance without obtaining the prior written consent of Landlord in each instance, which consent may be withheld by Landlord in its sole and absolute discretion. Notwithstanding the foregoing, Tenant shall have the right to (x) obtain financing from institutional or individual investors (including venture capital funding

and corporate partners) which regularly invest in private biotechnology companies, provided that such transaction is not a subterfuge to avoid the restrictions on Transfer otherwise set forth in this Article 12, (y) undergo a public offering, or (z) if Tenant is a public company, transfer shares of Tenant effected through any recognized exchange or through the "over the counter" market, any of which results in a change in control of Tenant without such change of control constituting an assignment under this Article 12 requiring Landlord consent, provided that (A) Tenant notifies Landlord in writing of the financing at least five (5) Business Days prior to the closing of the financing, (B) in no event shall such financing result in a change in the use of the Premises from the use contemplated by Tenant at the commencement of the Term, and (C) any such financing shall be subject to the proviso set forth in the immediately preceding sentence. An assignee, subtenant, licensee, or other occupant is referred to herein as a "**Transferee**". It shall be reasonable for Landlord to withhold consent to a proposed Transfer (other than a Related Party Transfer) if, by way of illustration and not in limitation, the proposed Transferee of a Transfer other than a Sublease does not have a net worth equal to or in excess of that of Tenant at the Date of Lease or immediately prior to the proposed Transfer, whichever is greater (or, in the case of a proposed Sublease, the proposed Transferee thereunder does not have the financial resources (including liquid assets) sufficient to timely perform its obligations under the proposed Sublease), or if the use proposed to be made of the Premises (or the applicable portion thereof) by the proposed Transferee is not a Permitted Use hereunder; *provided, however*, that, subject to the limitations on Transfers set forth in this Lease, the Premises may be used for Non-Life Science Uses following an assignment of this Lease or (with respect to the applicable portion of the Premises, a Sublease ), so long as such assignment or Sublease (i) is to an entity not affiliated with Tenant; (ii) is for a valid business purpose; and (iii) is not a subterfuge to avoid the restrictions on use set forth in **Section 9.01** above. A "Transfer" shall include any transfer of Tenant's interest in this Lease by operation of law, any "Related Party Transfer" (as defined below), and the grant of permission or license by Tenant to any other person or entity to use or occupy any portion of the Premises for any period of time or for any purpose whatsoever. Any Transfer shall be subject to this Lease, all of the provisions of which shall be conditions to such Transfer and be binding on any Transferee. No Transferee shall have any right further to Transfer its interest in the Premises, and nothing herein shall impose any obligation on Landlord with respect to a further Transfer.

Without limiting Landlord's right to withhold its consent to any Transfer by Tenant, and regardless of whether Landlord shall have consented to any such Transfer, neither Tenant nor any other person or entity having an interest in the possession, use or occupancy of the Premises or any part thereof shall enter into any lease, Sublease, assignment or other Transfer or agreement for possession, use or occupancy of all or any portion of the Premises which provides for rent or other payment for such use, occupancy or utilization based, in whole or in part, on the net income or profits derived by any person or entity from the space so leased, used or occupied, and any such purported lease, Sublease, assignment or other Transfer or agreement shall be absolutely void and ineffective as a conveyance of any right or interest in the possession, use or occupancy of all or any part of the Premises. There shall be no deduction from the rent payable under any Sublease or other Transfer nor from the amount thereof passed on to any person or entity, for any expenses or costs related in any way to the subleasing or Transfer of such space.

**12.02. Terms.** Tenant shall not offer to make a Transfer (i) to any tenant in the Development (or any Affiliate of such tenant) which is not a Related Party Transferee if, at the time of Tenant's intended Transfer, Landlord then has comparable space in the Building available for lease for a comparable term, or (ii) to any person or entity that would be of such type, character or condition as to be inappropriate as a tenant of a building comparable to the Building.



**12.03. Related Party Transfers.** Tenant may make a Related Party Transfer (as defined below) without the consent of Landlord provided that Tenant gives Landlord at least ten (10) days' prior written notice thereof together with evidence reasonably satisfactory to Landlord that the proposed Transfer is a Related Party Transfer; *provided, however*, that if Tenant is prohibited from providing such advance notice by a Legal Requirement or pursuant to an enforceable confidentiality agreement, Tenant shall deliver the same to Landlord within five (5) days following the Transfer. A "**Related Party Transfer**" shall mean one or more of the following: (1) any assignment or Sublease to (A) a parent which owns (either directly or indirectly) substantially all of the voting stock of Tenant or otherwise exercises voting control over Tenant, or (B) a subsidiary of Tenant in which Tenant owns (directly or indirectly) substantially all of the voting stock or over which Tenant otherwise exercises voting control, or (C) any subsidiary of Tenant's parent in which such parent owns (directly or indirectly) substantially all of the voting stock or over which such parent otherwise exercises voting control, or (D) any other Affiliate of Tenant, or (2) an assignment incident to the sale of all or substantially all of Tenant's assets, or (3) a statutory merger or consolidation of Tenant with any other entity, provided that in any of the situations described in the preceding clauses (1)-(3), (a) the person or entity succeeding to Tenant's interest immediately thereafter (the "**Related Party Transferee**") has a net worth equal to or in excess of that of Tenant at the Date of Lease or immediately prior to the Related Party Transfer, whichever is greater, and (b) such Related Party Transferee agrees in writing, for the benefit of Landlord, to assume all of Tenant's obligations under this Lease. Related Party Transfers shall not be subject to the provisions of (a) clause (i) of Section 12.02, (b) Section 12.04, (c) the first sentence of Section 12.05, or (d) Section 12.06.

**12.04. Recapture of Premises.** If Tenant proposes either (i) an assignment, Sublease or other Transfer of the entire Premises, or (ii) a Sublease of any portion (but less than all) of the Premises, then Landlord shall have the additional option, at its sole election, either (A) in the case of a proposed assignment, Sublease or other Transfer of the entire Premises, to terminate this Lease in its entirety, or (B) in the case of a proposed Sublease of a portion (but less than all) of the Premises, to terminate this Lease as to the portion of the Premises proposed to be so Subleased. If Landlord elects in a written notice given to Tenant within thirty (30) days after receipt of such written notice from Tenant to terminate this Lease in whole or in part pursuant to this Section, then this Lease shall so terminate in whole or in part (as so elected by Landlord) on the date specified by Landlord in such written notice to Tenant (which date shall be not less than thirty (30) days after the date of such notice), and all of the provisions of this Lease applicable to the expiration of the Term shall apply to such space. If Landlord notifies Tenant in writing within such 30-day period that Landlord elects not to exercise its termination right pursuant to this Section, or if Landlord fails to provide written notice to Tenant within such 30-day period that it elects to exercise its termination right pursuant to this Section (which shall be deemed a waiver by Landlord of its right to terminate pursuant to this Section), Tenant shall then comply with the provisions of this Article applicable to a Transfer. Landlord shall have the right to separate any portion of the Premises recaptured pursuant to this Section 12.04 from the remainder of the Premises by constructing demising walls and other improvements necessary to convert the applicable portion of the Premises and Building to multi-tenant use at Landlord's sole cost and expense.

**12.05. Procedures.** At least thirty (30) days prior to the effective date of any Transfer, Tenant shall give Landlord in writing the details of the proposed Transfer, including: (i) the name, business, and financial condition (including the most recent annual and quarterly financial statements, in form and content reasonably acceptable to Landlord) of the prospective Transferee, (ii) a true and complete copy of the proposed instrument containing all of the terms and conditions of such Transfer, (iii) a written agreement of the prospective Transferee, in form and content reasonably acceptable to Landlord, agreeing with Landlord to perform and observe all of the terms, covenants, and conditions of this Lease undertaken by such Transferee, and (iv) any other information Landlord reasonably requires. Tenant shall pay to Landlord, as Additional Rent, Landlord's reasonable outside attorneys' fees in reviewing any Transfer. Tenant shall provide Landlord with a true and correct copy of the instrument effecting the Transfer on or before the date that it takes effect, except that with respect to a Related Party Transfer, Tenant shall, within fifteen (15) days after the Related Party Transfer, deliver to Landlord evidence of merger or such other evidence as is reasonably satisfactory to Landlord that such Related Party Transfer has occurred. Landlord shall make commercially reasonable efforts to respond in writing to a request for its consent to a Transfer made by

Tenant in accordance with the provisions of this Section 12.05 within fifteen (15) Business Days after receipt by Landlord of all materials and information relating to such proposed Transfer and proposed Transferee as are required to be provided to Landlord pursuant to this Section 12.05, but Landlord's failure to respond within such time period shall not constitute deemed approval of any proposed Transfer or proposed Transferee.

**12.06. Excess Rents.** If the consideration, rent, or other amounts payable to Tenant under any sublease, license, concession, or other agreement for possession, use or occupancy of all or any portion of the Premises (collectively, a "**Sublease**") or any assignment exceed the sum of (1) Rent and other charges to be paid hereunder (which amounts, in the case of a Sublease, shall be pro-rated based on the floor area intended to be subject to such Sublease), and (2) Tenant's Expenses (which shall be (a) in the case of an assignment, amortized over the remaining Term of the Lease, and (b) in the case of a Sublease, (i) pro-rated based on the floor area intended to be subject to such Sublease, and (ii) amortized over the fixed term of the Sublease in question), then Tenant shall pay to Landlord, as Additional Rent, one-half (1/2) of the amount of such excess when and as received by Tenant. "**Tenant's Expenses**" shall mean, collectively, (i) the necessary and reasonable expenses incurred by Tenant in good faith to third parties in connection with such an assignment or Sublease (as the case may be) on account of brokerage, legal, design, and demising and leasehold improvement costs in the portion of the Premises affected by, and specifically in connection with, such assignment or Sublease, and (iii) the unamortized out of pocket cost to Tenant of previously constructing Tenant Work in the Premises (or, in the case of a Sublease, in the portion of the Premises to be subject to such Sublease) and in either case with respect to the Initial Tenant Work, only the portion of the cost thereof paid out of pocket by Tenant, and not the portion of the cost thereof covered by Landlord's Allowance pursuant to the Work Letter, shall be included as an "out of pocket cost to Tenant" for purposes of this calculation, with such amortization to be calculated on a straight line basis over the remaining Initial Term of the Lease as of the date such expense was incurred by Tenant. There shall be included in the calculation to be performed pursuant to the first sentence of this section any lump-sum payment or periodic payments made to Tenant for the purchase of so-called leasehold improvements, but all lump-sum or periodic payments made to Tenant on account of the leasing or mere use of Tenant's equipment by the Transferee under such Sublease or assignment shall be excluded from such calculation. The provisions of this Section 12.06 shall not apply to Related Party Transfers.

**12.07. No Release.** Notwithstanding any Transfer and whether or not the same is a Related Party Transfer or is consented to, the liability of Tenant to Landlord shall remain direct and primary, to the extent that Tenant still exists as a separate entity after a Related Party Transfer. Any Transferee of all or substantially all of Tenant's interest in the Premises, including any such Transferee under a Related Party Transfer, shall be jointly and severally liable with Tenant (to the extent that Tenant still exists as a separate entity after a Related Party Transfer) to Landlord for the performance of all of Tenant's covenants under this Lease; and such Transferee shall upon written request from Landlord execute and deliver such instruments as Landlord reasonably requests in confirmation thereof (and agrees that its failure to do so shall be a default). During any period when there exists an Event of Default by Tenant which is then continuing, Tenant hereby irrevocably authorizes Landlord to collect Rent and other charges from any Transferee (and upon notice from Landlord any Transferee shall pay directly to Landlord) and apply the net amount collected to the Rent and other charges reserved under this Lease. No Transfer shall be deemed a waiver of the provisions of this Section, or the acceptance of the Transferee as a tenant, or a release of Tenant from direct and primary liability for the performance of all of the covenants of this Lease. The consent by Landlord to any Transfer shall not relieve Tenant or any Transferee from the obligation of obtaining the express consent of Landlord to any modification of such Transfer or a further Transfer by Tenant or such Transferee. Notwithstanding anything to the contrary in the documents effecting the Transfer, Landlord's consent shall not alter in any manner whatsoever the terms of this Lease, to which any Transfer at all times shall be subject and subordinate.

## ARTICLE 13: EVENTS OF DEFAULT AND REMEDIES

### 13.01. Events of Default. In the event that:

- (A) Tenant shall default in the payment of any Base Rent, Additional Rent or other sum payable under this Lease, when and as the same shall become due and payable hereunder, and such default shall continue for a period of five (5) days after Landlord gives Tenant written notice that such payment was not paid when due; *provided, however*, that after Landlord has given two (2) notices to Tenant of a default pursuant to this Section 13.01.A within a twelve (12) month period, then for a period of twelve (12) months from the date of such second notice Tenant shall not be entitled to any notice of a further default under this Section 13.01.A, and Tenant's failure at any time during such 12-month period to make any such payment within five (5) days after the date on which such payment is due hereunder shall constitute an Event of Default without the necessity of any notice; or
- (B) Tenant shall (i) make any Transfer in violation of this Lease; or (ii) fail to (a) maintain all insurance as required hereunder, or (b) within five (5) days after Landlord's written request to deliver the same, provide Landlord with the certificates of insurance required pursuant to Article 7 above, or (c) restore or replenish the amount of the Security Deposit following a draw by Landlord upon the Security Deposit, as required by Article 14 below, or (d) execute, acknowledge and deliver within the 10-Business Day period provided in Section 15.02 below any instrument described therein regarding the subordination or priority of this Lease relative to any mortgage encumbering the property of which the Premises is a part, or (e) provide Landlord with an estoppel certificate following the second written notice within the time provided in Section 15.04 below; or
- (C) Tenant shall file a voluntary petition in bankruptcy or shall be adjudicated a bankrupt or insolvent; or shall file any petition or answer seeking any reorganization, arrangement, composition, liquidation, dissolution or similar relief under any present or future federal, state or other statute, law or regulation relating to bankruptcy, insolvency or other relief for debtors; or shall seek, or consent to, or acquiesce in the appointment of any trustee, receiver or liquidator of Tenant; or shall make any general assignment for the benefit of creditors; or
- (D) any court enters an order, judgment or decree approving a petition filed against Tenant seeking any reorganization, arrangement, composition, liquidation, dissolution or similar relief under any present or future federal, state or other statute, law or regulation relating to bankruptcy, insolvency or other relief for debtors, or for the appointment of a receiver, and such order, judgment or decree shall remain unvacated or unstayed for an aggregate of ninety (90) days; or
- (E) any representation or warranty made by Tenant herein is untrue in any material respect when made; or
- (F) Tenant shall default in the observance or performance of any of Tenant's covenants, agreements or obligations hereunder, other than those referred to in the foregoing clauses (A)-(E), and such default shall not be corrected within the cure period expressly provided in this Lease therefor (and if no cure period is expressly provided, then for thirty (30) days after notice is given, *provided, however* that such period shall be reasonably extended in the case of a non-monetary default that cannot be cured within such thirty (30) day period through the use of diligent efforts but only if the default can be cured and Tenant begins such cure within such thirty (30) day period and thereafter diligently prosecutes such cure continuously to completion);

then, and in any such case, Landlord and its agents lawfully may, in addition to any remedies for any preceding breach, immediately or at any time thereafter without demand or notice and with or without process of law, enter upon any part of the Premises in the name of the whole or mail or deliver a notice of termination of the Term of this Lease addressed to Tenant at the address provided for in Section 16.05 below, and thereby terminate the Term and repossess the Premises as of Landlord's former estate. Any default by Tenant continuing beyond applicable notice and cure periods is referred to herein as an "**Event of Default**". Tenant waives any statutory notice to quit and equitable rights in the nature of further cure or redemption, and Tenant agrees that upon Landlord's termination of this Lease, Landlord shall be entitled to re-entry and possession in accordance with the terms hereof. Tenant agrees that a notice by Landlord alleging any default shall, at Landlord's option (the exercise of such option shall be indicated by the inclusion of the words "notice to quit" in such notice), constitute a statutory notice to quit. If Landlord exercises its option to designate a notice of default hereunder as a statutory notice to quit, any grace periods provided for herein shall run concurrently with any statutory notice periods. Tenant further agrees that it shall not interpose any counterclaim or set-off in any summary proceeding or in any action based in whole or in part on non-payment of Rent other than mandatory counterclaims.

Upon such entry or mailing the Term shall terminate, all executory rights of Tenant and all obligations of Landlord will immediately cease, and Landlord may expel Tenant and all persons claiming under Tenant and remove their effects without any trespass and without prejudice to any remedies for arrears of Rent or prior breach; and Tenant waives all statutory and equitable rights to its leasehold (including rights in the nature of further cure or redemption, if any). If Landlord engages attorneys in connection with any failure to perform by Tenant hereunder, Tenant shall reimburse Landlord within ten (10) days of demand, as Additional Rent, for the reasonable fees of such attorneys. Without implying that other provisions do not survive, the provisions of this Article shall survive the Term or earlier termination of this Lease.

Subject to the provisions of this Article 13, Tenant shall indemnify Landlord against all loss of Rent and other costs, expenses, loss and damages that Landlord may incur during what would otherwise have constituted the balance of the Term by reason of the termination of this Lease for Tenant's Event of Default hereunder. Without limiting the generality of the foregoing, Tenant shall reimburse Landlord for all expenses incurred by Landlord arising out of such termination, including all costs incurred in collecting amounts due from Tenant under this Lease (including reasonable attorneys' fees, costs of litigation and the like); all expenses incurred by Landlord in good faith in attempting to relet the Premises or parts thereof (including advertisements, brokerage commissions, tenant allowances, costs of preparing space, and the like); and all other expenditures by Landlord arising out of or resulting from the termination. The reimbursement from Tenant shall be due and payable within ten (10) days from time to time upon written notice from Landlord that an expense has been incurred, without regard to whether the expense was incurred before or after the termination of this Lease.

### **13.02. Remedies for Default.**

(a) Reletting Expenses Damages. If this Lease is terminated for Tenant's Event of Default, Tenant covenants, as an additional cumulative obligation after such termination, to pay within ten (10) days of written demand by Landlord all of Landlord's reasonable out of pocket costs, including reasonable attorneys' fees and costs, related to Tenant's default and in collecting amounts due, and all reasonable expenses in connection with reletting, including tenant inducements to new tenants, brokerage commissions, fees for legal services, and expenses of preparing the Premises for reletting, together with an Administrative Charge as set forth in Section 13.02(e) ("**Reletting Expenses**"). It is agreed that Landlord

may (i) relet the Premises or part or parts thereof for a term or terms that may be equal to, less than or exceed the period that would otherwise have constituted the balance of the Term, and may grant such tenant inducements, including free rent, as Landlord in its sole discretion considers advisable, and (ii) make such alterations to the Premises as Landlord in its sole discretion considers advisable, and no failure to relet or to collect rent under any reletting shall operate to reduce Tenant's liability. Except to the extent imposed by applicable law, Landlord shall have no obligation to relet the Premises or any portion thereof, and any obligation to relet imposed by law will be subject to (i) Landlord's right, at its option, to first lease other space in the Unit which is then (or which will soon thereafter become) available for lease, and (ii) Landlord's reasonable objectives of developing its property in a harmonious manner with appropriate mixes of tenants, uses, floor areas, terms and the like.

(b) Termination Damages. If this Lease is terminated for Tenant's Event of Default, then unless and until Landlord elects lump sum liquidated damages described in the next paragraph, Tenant covenants, as an additional, cumulative obligation after any such termination, to pay punctually to Landlord all the sums and perform all of its obligations hereunder at the same time and in the same manner as if this Lease had not been terminated. In calculating such amounts, Tenant will be credited with the net proceeds of any rent then actually received by Landlord from a re-letting of the Premises after deducting all Rent and Reletting Expenses that have not then been paid by Tenant, provided that Tenant shall never be entitled to receive any portion of the re-letting proceeds, even if the same exceed the Rent originally due hereunder.

(c) Lump Sum Liquidated Damages. If this Lease is terminated for Tenant's Event of Default, Tenant covenants, as an additional, cumulative obligation after any such termination, to pay forthwith to Landlord at Landlord's election made by written notice at any time after termination, as liquidated damages, a single lump sum payment equal to the sum of (i) all sums then due and owing from Tenant to Landlord at the time of such election, plus (ii) either, as Landlord elects, (A) the excess of the present value of all of the Rent reserved for the residue of the Term (with Additional Rent deemed to increase three (3%) percent in each year on a non-compounding basis) over the present value of the aggregate Fair Market Rent and Additional Rent payable on account of the Premises during such period, which Fair Market Rent shall be reduced by reasonable projections of vacancies and by Landlord's Reletting Expenses described above to the extent not theretofore paid to Landlord, or (B) an amount equal to the sum of all of the Rent and other sums due under the Lease with respect to the nine (9) month period immediately preceding the date of such termination. The Federal Reserve discount rate (or equivalent) shall be used in calculating such present values under clause (ii)(A).

(d) Remedies Cumulative; Late Performance. The remedies to which Landlord may resort under this Lease, and all other rights and remedies of Landlord, are cumulative (except as otherwise provided in the first sentence of Section 13.02(b) above), and any two or more may be exercised at the same time. Nothing in this Lease shall limit the right of Landlord to prove and obtain in proceedings for bankruptcy or insolvency an amount equal to the maximum allowed by any statute or rule of law in effect at the time. Tenant shall also indemnify and hold Landlord harmless in the manner provided elsewhere herein if Landlord shall become or be made a party to any claim or action (a) instituted by Tenant against any third party, or by any third party against Tenant, or by or against any person claiming by, through or under Tenant; (b) for foreclosure of any lien for labor or material furnished to or for Tenant or such other person; (c) otherwise arising out of or resulting from any act or transaction of Tenant or such other person; or (d) necessary to protect Landlord's interest under this Lease in a bankruptcy proceeding, or other proceeding under Title 11 of the United States Code, as amended.

(e) Landlord's Curing. If Tenant fails to perform any covenant within the applicable cure period (if any), then Landlord at its option may (without waiving any right or remedy for Tenant's non-performance) at any time thereafter perform the covenant for the account of Tenant. Tenant shall, within ten (10) days of Landlord's written demand, reimburse, as Additional Rent, Landlord's cost (including

reasonable attorneys' fees) of so performing, together with an administrative charge equal to ten percent (10%) of such cost ("**Administrative Charge**") as Additional Rent. Notwithstanding any other provision concerning cure periods, Landlord may cure any non-performance for the account of Tenant after such written notice to Tenant, if any, as is reasonable under the circumstances if curing prior to the expiration of the applicable cure period is reasonably necessary to prevent likely damage to the Premises, the Unit or the Building or possible injury to persons, or to protect Landlord's interest in the Premises, the Unit and the Building.

#### **ARTICLE 14: SECURITY DEPOSIT**

Upon the execution of this Lease, Tenant shall deposit with Landlord a Letter of Credit as described in this Section (the "**Letter of Credit**"), as security for the punctual performance of each and every obligation of Tenant under this Lease. In no event shall the Security Deposit be deemed to be a prepayment of Rent nor shall it be considered a measure of liquidated damages.

The Letter of Credit shall be an irrevocable standby letter of credit, in form and content and issued by a commercial bank satisfactory to Landlord in its reasonable discretion, which Letter of Credit shall provide that it may be drawn upon in Boston, Massachusetts or by facsimile (i) in part or in whole, upon the presentation of a sight draft accompanied by a certificate signed by a representative of Landlord, setting forth the amount due to Landlord by reason of the occurrence of an Event of Default by Tenant hereunder, or (ii) in whole, upon the presentation of a sight draft accompanied by a certificate signed by a representative of Landlord, stating that (a) such Letter of Credit will expire within thirty (30) days of such certificate, and (b) Tenant has not deposited a substitute Letter of Credit in the form, amount and issued by a bank as required by this Section. Landlord agrees that for purposes of this Section, First Republic Bank shall be an acceptable issuer of the Letter of Credit. Any payment drawn by Landlord under the Letter of Credit pursuant to clause (ii) of the preceding sentence shall be held by Landlord as a cash Security Deposit ("**Cash Security**") pursuant to the provisions of this Article. Landlord may commingle any Cash Security with Landlord's other funds, and no interest shall be due thereon. The Letter of Credit shall remain in full force and effect for a period of at least sixty (60) days beyond the expiration of the Term. Tenant shall deposit the original Letter of Credit with Landlord and shall keep the Letter of Credit in full force and in compliance with the provisions of this Lease throughout the Term. If required by the terms of any mortgage, pledge, security agreement or other encumbrance granted on the Unit or Landlord's interest therein to secure financing provided to Landlord, Landlord may assign the Letter of Credit to the holder of such mortgage, pledge, security agreement or other encumbrance.

Landlord may apply the Security Deposit towards any default by Tenant which continues beyond the expiration of the applicable notice and cure period provided therefor in this Lease (if any), and damages sustained by Landlord as a result thereof. In the event that Landlord so draws upon and applies all or any portion of the proceeds of the Letter of Credit, or so applies all or any portion of the Cash Security, Tenant shall pay to Landlord, as Additional Rent, the amount so expended by Landlord (or shall deliver an amendment to the Letter of Credit increasing the amount of the Letter of Credit by the amount so drawn by Landlord) within five (5) Business Days of written notice given by Landlord so that at all times (subject to the 5-Business Day grace period herein referenced) Landlord shall be entitled to draw down upon the full aggregate amount of the Letter of Credit or hold the full Cash Security, or some combination thereof (in an amount not to exceed the amount of the Security Deposit specified in Article 1 above, as such amount may be reduced in accordance with the provisions of the last two grammatical paragraphs of this Article 14). Notwithstanding anything contained in this Lease to the contrary, any failure of Tenant to restore any amount drawn under the Letter of Credit or expended from the Cash Security within the time and manner specified in this Section shall immediately constitute an Event of Default hereunder (without the necessity of any additional notice or the passage of any additional time) and entitle Landlord to immediately draw down the Letter of Credit then in force or effect and Landlord shall retain such cash amounts as a Security

Deposit pursuant to the provisions of this Section. Tenant shall be solely responsible for the payment of all costs associated with obtaining, replacing (as necessary), transferring, extending and maintaining the Letter of Credit in accordance with the terms of this Section. The application of all or any part of the Security Deposit to any obligation or default of Tenant under this Lease shall not deprive Landlord of any other rights or remedies Landlord may have, nor shall such application by Landlord constitute a waiver by Landlord. In addition, in the event of a termination based upon an Event of Default of Tenant under this Lease, or a rejection of the Lease pursuant to the provisions of the Federal Bankruptcy Code, Landlord shall have the right to apply the Security Deposit (from time to time, if necessary) to cover up to the full amount of damages and other amounts due from Tenant to Landlord under the Lease. Any amounts so applied shall, at Landlord's election, be applied first to any unpaid Rent and other charges which were due prior to the filing of the petition for protection under the Federal Bankruptcy Code.

Landlord shall assign the Security Deposit to any purchaser of the Unit, and thereafter Landlord shall have no further responsibility therefor. Upon request of Landlord or any such purchaser of the Building, Tenant shall, at its expense, cooperate with Landlord in obtaining an amendment to or replacement of any Letter of Credit which Landlord is then holding so that the amended or new Letter of Credit reflects the name of the new owner of the Unit.

Within sixty (60) days after the expiration or earlier termination of the Term, Landlord shall inspect the Premises, make such draw upon the Letter of Credit or apply all or any portion of the Cash Security as may be required to cure any default by Tenant hereunder or to make payment on account of damages suffered by Landlord, and, if no default is then continuing, Landlord shall redeliver the original Letter of Credit (as may have previously been drawn on by Tenant) or pay the balance of the Cash Security, as the case may be, to Tenant.

Notwithstanding the foregoing, provided that (1) this Lease is in full force and effect as of the last day of the third (3<sup>rd</sup>) Lease Year (the "**Reduction Date**"), (2) no Event of Default on the part of Tenant has occurred prior to the Reduction Date which is continuing as of the Reduction Date, (3) as of the Reduction Date Tenant has not assigned the Lease or effected a Transfer of an ownership interest (direct or indirect) in Tenant which effects a change in control of Tenant) other than (A) a Related Party Transfer, or (B) as approved by Landlord pursuant to the provisions of Article 12 hereof, and (4) as of the Reduction Date (x) if Tenant is then a publicly-traded company, Tenant has a market capitalization of not less than Five Hundred Million (\$500,000,000.00) Dollars, or (y) if Tenant is not then a publicly-traded company, Tenant has an enterprise value of not less than Seven Hundred Fifty Million (\$750,000,000.00) Dollars, Landlord agrees to accept a reduction in the amount of the Letter of Credit which it is then holding so as to cause the total Security Deposit to be reduced as of the Reduction Date to an amount equal to Six Hundred Eighteen Thousand Three Hundred Thirty-Two (\$618,332.00) Dollars.

Any reduction in the Letter of Credit held by Landlord as the Security Deposit pursuant to the immediately preceding paragraph shall be accomplished by Tenant providing Landlord with a substitute Letter of Credit in the reduced amount in exchange for the existing Letter of Credit which Landlord is then holding, or by an amendment to the existing Letter of Credit then held by Landlord, in form and substance reasonably acceptable to Landlord, which is accepted by Landlord in writing (which acceptance may be evidenced by e-mail). If Tenant does not satisfy the requirements for a reduction in the amount of the Letter of Credit on the Reduction Date as specified above, then Tenant shall be deemed to have irrevocably forfeited its right to any reduction in the amount of the Letter of Credit during the Term.

## ARTICLE 15: PROTECTION OF LENDERS

**15.01. Rights of Mortgage Holders.** Until the holder of a mortgage shall enter and take possession of the Premises for the purpose of foreclosure, such holder shall have only such rights of Landlord as are necessary to preserve the integrity of this Lease as security. Upon entry and taking possession of the Premises for the purpose of foreclosure, such holder shall have all the rights of Landlord hereunder. Notwithstanding any other provision of this Lease to the contrary, no such holder of a mortgage shall be liable either as mortgagee, assignee or otherwise, to perform, or be liable in damages for failure to perform, any of the obligations of Landlord unless and until such holder shall succeed to the interests of the Landlord, by foreclosure or deed in lieu of foreclosure, and such holder shall not in any event be liable to perform or for failure to perform the obligations of Landlord under the Work Letter. In the event the holder of a mortgage shall succeed to the interest of the Landlord as aforesaid, such holder shall be liable to perform all of the obligations of Landlord accruing from and after succession in interest (except for the obligations under the Work Letter), subject to and with the benefit of all of the provisions of this Lease. No Base Rent, Additional Rent or any other charge shall be paid more than ten (10) days prior to the due dates thereof and payments made in violation of this provision shall (except to the extent that such payment are actually received by a mortgagee in possession or in the process of foreclosing its mortgage) be a nullity as against such mortgagee and Tenant shall be liable for the amount of such payments to such mortgagee.

**15.02. Subordination of Lease.** It is agreed that the rights and interest of Tenant under this Lease shall be (i) subject or subordinate to any present or future mortgage or mortgages and to any and all advances to be made thereunder, and to the interest of the holder thereof in the Premises or any property of which the Premises are a part if such mortgagee shall elect by notice to Tenant to subject or subordinate the rights and interest of Tenant under this Lease to such mortgage or (ii) prior to any present or future mortgage or mortgages, if such mortgagee shall elect, by notice to Tenant, to give the rights and interest of Tenant under this Lease priority to such mortgage. In the event of either of such elections, and upon notification by mortgagee to that effect, the rights and interest of Tenant under this Lease shall be deemed to be subordinate to, or have priority over, as the case may be, said mortgage or mortgages, irrespective of the time of execution or time of recording of any such mortgage or mortgages. Tenant agrees it will, within ten (10) Business Days of Landlord's or any such mortgagee's written request therefor, execute, acknowledge and deliver any and all instruments deemed by Landlord, or by the requesting mortgagee, necessary or desirable to give effect to or notice of such subordination or priority. Any mortgage to which this Lease shall be subordinated may contain such terms, provisions and conditions as the holder, in its sole discretion, deems necessary or appropriate. Notwithstanding the foregoing, however, (a) Landlord shall deliver to Tenant promptly following the execution and delivery of this Lease a subordination, non-disturbance and attornment agreement ("SNDA") reasonably satisfactory to Tenant and such mortgagee with respect to any existing mortgage encumbering the Building or the Unit as of the Date of Lease, pursuant to which the holder of such mortgage shall agree to recognize and not disturb Tenant's rights under this Lease so long as Tenant is not in default under this Lease beyond the expiration of applicable notice and cure periods, if any, and (b) Tenant shall not be obligated to subordinate this Lease to any future mortgage encumbering the Building or the Unit unless the mortgagee provides Tenant with an SNDA reasonably satisfactory to Tenant and such mortgagee pursuant to which the holder of such mortgage agrees to recognize and not disturb Tenant's rights under this Lease so long as Tenant is not in default under this Lease beyond the expiration of applicable notice and cure periods, if any. The current mortgagee's form of SNDA as of the Date of Lease is attached hereto as **Exhibit M** and is deemed to be acceptable to Tenant. Any mortgage recorded after the recording of the memorandum of lease referred to in Section 27.2 shall be subject to this Lease unless the mortgagee elects under clause (i) of this Section to subordinate the rights and interest of Tenant to such mortgage and Tenant and such mortgagee execute a SNDA reasonably satisfactory to Tenant and such mortgagee with respect to this Lease. An election by a mortgagee under clause (i) of the first sentence of this Section to subordinate the rights and interest of Tenant to a mortgage shall not be valid unless consented to in writing by all the holders of record of all mortgages then outstanding secured by the Premises.



**15.03. Mortgagee's Consent and Right to Cure Defaults.** No agreement to make or accept any surrender, termination or cancellation of this Lease and no agreement to modify so as to reduce the rent, change the Term, or otherwise materially change the rights of Landlord under this Lease, or to relieve Tenant of any obligations or liability under this Lease, shall be valid unless consented to by Landlord's mortgagees of record, if any. No act or failure to act on the part of Landlord which would entitle Tenant under the terms of this Lease, or by law, to be relieved of Tenant's obligations hereunder or to terminate this Lease, shall result in a release or termination of such obligations or a termination of this Lease unless (i) Tenant shall have first given written notice of Landlord's act or failure to act to Landlord's mortgagees of record, if any, specifying the act or failure to act on the part of Landlord which could or would give basis to Tenant's rights; and (ii) such mortgagees, after receipt of such notice, have failed or refused to correct or cure the condition complained of within a reasonable time thereafter; but nothing contained in this Section shall be deemed to impose any obligation on any such mortgagees to correct or cure any such condition. "**Reasonable time**" as used above means and includes a reasonable time to obtain possession of the mortgaged premises if the mortgagee elects to do so and a reasonable time to correct or cure the condition if such condition is determined to exist.

**15.04. Estoppel Certificates.** Within ten (10) Business Days after Tenant's receipt of the written request of Landlord, Tenant shall execute, acknowledge and deliver to Landlord a written statement in the form attached hereto as **Exhibit N** or in such other form as may be reasonably requested by Landlord, certifying (i) that none of the terms or provisions of this Lease have been changed (or if they have been changed, stating how); (ii) that this Lease has not been canceled or terminated and is in full force and effect; (iii) the last date of payment of Base Rent and other charges and the time period covered; (iv) to the best of Tenant's knowledge, that Landlord is not in default under this Lease (or if in default, describing it in reasonable detail); and (v) such other information with respect to Tenant as Landlord may reasonably request or which any prospective purchaser or encumbrancer of the Unit, the Building or the Development may reasonably require. Landlord may deliver any such statement by Tenant to any prospective purchaser or encumbrancer, which parties may rely conclusively upon such statement as true and correct. If Tenant does not deliver such statement to Landlord within such ten (10) Business Day period:

(a) Landlord, and any such prospective purchaser or encumbrancer, may conclusively presume and rely upon the following facts: (i) that the terms and provisions of this Lease have not been changed except as represented by Landlord; (ii) that this Lease has not been canceled or terminated and is in full force and effect, except as otherwise represented by Landlord; (iii) that not more than one (1) month's Base Rent or other charges have been paid in advance; and (iv) that Landlord is not in default under this Lease. In such event, Tenant shall be estopped from denying the truth of such facts; and

(b) If Landlord gives written notice to Tenant of such failure and Tenant further fails to deliver such statement to Landlord within five (5) Business Days following the giving of such second written notice, then an Event of Default shall be deemed to have occurred pursuant to Section 13.01(B)(ii)(d) above.

Within ten (10) Business Days after Landlord's receipt of the written request of Tenant, Landlord shall execute, acknowledge and deliver to Tenant a written statement in such form as may be reasonably requested by Tenant, certifying (i) that none of the terms or provisions of this Lease have been changed (or if they have been changed, stating how); (ii) that this Lease has not been canceled or terminated and is in full force and effect; (iii) the last date of payment of Base Rent and other charges and the time period covered; (iv) to the best of Landlord's knowledge, that Tenant is not in default under this Lease (or if in default, describing it in reasonable detail); and (v) such other information with respect to Landlord as Tenant may reasonably request or which any prospective assignee of Tenant's interest hereunder in accordance with the provisions of Article 12 may reasonably require. Tenant may deliver any such statement by Landlord to any such prospective encumbrancer or investor, which parties may rely conclusively upon such statement as true and correct.

**15.05. Financial Condition.** Tenant, within ten (10) Business Days after request from Landlord from time to time, but in no event more than once per twelve (12) month period (except in connection with a sale or refinance of the Unit), shall deliver to Landlord (i) Tenant's annual audited (if available, otherwise certified by Tenant's Chief Financial Officer) financial statements for the latest available fiscal year (provided that after Tenant first takes occupancy of any portion of the Premises for the conduct of its business, Tenant shall provide in response to such a request from Landlord financial statements for the two (2) latest available fiscal years, including the most recent fiscal year prior to Landlord's request), and (ii) to the extent to which Tenant has otherwise prepared them (or caused them to be prepared) for any purpose, quarterly financial statements certified in writing by Tenant's chief financial officer with respect to the then-current fiscal year. Landlord may deliver such financial statements to its mortgagees and lenders and prospective mortgagees, lenders, and purchasers on a confidential basis. Tenant represents and warrants to Landlord that each unaudited financial statement shall be prepared in accordance with generally accepted accounting principles ("**GAAP**") (except that such financial statements may (i) be subject to normal year-end audit adjustments, and (ii) not contain all notes thereto that may be required in accordance with GAAP, consistently applied, and shall fairly and accurately represent the financial condition of Tenant as of the date of such statement. Except for publicly available information, financial statements shall be kept confidential, and Landlord and any parties to whom Landlord provides such statements shall enter into reasonable confidentiality agreements with Tenant, in form reasonably acceptable to both Landlord and Tenant, prior to Tenant's delivery of such financial statements. The requirements of this Section 15.05 shall be suspended during such time (if any) as Tenant is subject to the public reporting requirements of the Securities Act of 1934, as amended.

## **ARTICLE 16: MISCELLANEOUS PROVISIONS**

**16.01. Landlord's Consent Fees.** In addition to fees and expenses in connection with Tenant Work as described in Section 10.05 above, Tenant shall pay Landlord's reasonable out-of-pocket third party fees and expenses, including legal, engineering and other consultants' fees and expenses, incurred in connection with Tenant's request for Landlord's consent under Article 12 or in connection with any other request by Tenant for Landlord's consent or approval under this Lease.

**16.02. Landlord's Default.** Landlord shall in no event be in default in the performance of any of Landlord's obligations under this Lease unless and until Landlord shall have failed to perform such obligation within thirty (30) days after notice by Tenant to Landlord ("**Tenant's Default Notice**") specifying the manner in which Landlord has failed to perform any such obligation (provided that if correction of any such matter reasonably requires longer than thirty (30) days and Landlord so notifies Tenant within thirty (30) days after such Tenant's Default Notice is given, Landlord shall be allowed such longer period, but only if cure is begun within such thirty (30) day period and thereafter diligently prosecuted to completion). In the event of any default by Landlord hereunder, Tenant shall have no right to perform such Landlord obligation and recover from Landlord any costs so incurred, or to abate or withhold Rent, but Tenant shall have the right, in the event of a default by Landlord hereunder, to commence and to prosecute an independent proceeding against Landlord for the recovery of damages or for equitable relief. This Lease shall be construed as though Landlord's and Tenant's covenants contained herein are independent and not dependent, and Tenant hereby waives the benefit of any statute or judicial law to the contrary. In no event shall Landlord ever be liable to Tenant for any indirect, special, consequential, or punitive damages.

**16.03. Quiet Enjoyment.** Landlord agrees that, so long as no Event of Default has occurred and is then continuing under this Lease, Tenant shall peaceably and quietly hold, occupy and enjoy the Premises during the Term of this Lease without disturbance by Landlord or by any person claiming through or under Landlord, subject to the terms of this Lease, the Condominium Documents and Title Matters.

**16.04. Interpretation.** In any provision relating to the conduct, acts or omissions of Tenant, the term "**Tenant**" includes Tenant's agents, employees, contractors, invitees, or successors. In any provision relating to the conduct, acts or omissions of Landlord, the term "**Landlord**" includes Landlord's agents, employees, invitees, contractors or successors.

**16.05. Notices.** All notices, requests and other communications required under this Lease (a) shall be in writing unless otherwise expressly provided herein, addressed (i) to Landlord, as specified in Article 1, and (ii) to Tenant, as specified in Article 1 until the Rent Commencement Date, and then from and after the Rent Commencement Date, to Tenant at the Premises, Attn: Jennifer Ziolkowski, Chief Financial Officer, with a copy to [jziolkowski@vigilneuro.com](mailto:jziolkowski@vigilneuro.com), and (b) shall (unless otherwise expressly provided in this Lease) be (i) personally delivered, or (ii) sent by certified mail, return receipt requested, postage prepaid, or (iii) delivered by a national overnight delivery service that maintains delivery records. Any notice so addressed shall be effective upon the earlier of (A) actual receipt, or (B) first tender for delivery by the United States Postal Service or a national overnight courier (provided that such first tender occurs on a Business Day), or (C) on the third Business Day following the day of mailing if so mailed by certified mail, return receipt requested. Either party may change its notice address upon written notice to the other party. Whenever oral notice is expressly permitted to be provided by either party pursuant to the provisions of this Lease, such notice shall only be valid and effective if such party uses all reasonable efforts to provide confirmatory written notice to the other party within twenty-four (24) hours of the giving of such oral notice.

**16.06. No Recordation.** Tenant shall not record this Lease or any portion(s) hereof, and immediately upon any such recording this Lease shall automatically (and without the necessity of any notice from or action by Landlord) terminate. Notwithstanding the foregoing, Landlord and Tenant agree to execute herewith a Notice of Lease in the form attached hereto as Exhibit O, which shall be recorded with the appropriate Registry of Deeds, and agree to execute, upon termination of this Lease for whatever cause, a Notice of Termination of Lease in recordable form for recording with said Registry of Deeds.

**16.07. Corporate Authority.** Each of Tenant and Landlord warrant and represent to the other that (a) such party is duly organized, validly existing and in good standing under the laws of the jurisdiction in which such entity was organized; (b) such party has the authority to own its property and to carry on its business as contemplated under this Lease; (c) such party has duly executed and delivered this Lease; and (d) the execution, delivery and performance by such party of this Lease (i) are within the powers of such party, (ii) have been duly authorized by all requisite action, (iii) will not violate any provision of law or any order of any court or agency of government, or any agreement or other instrument to which such party is a party or by which it or any of its property is bound, and (iv) will not result in the imposition of any lien or charge on any of such party's property, except by the provisions of this Lease. Each party agrees that breach of the foregoing warranties and representations shall at the other party's election be a default under this Lease for which there shall be no cure. These warranties and representations shall survive the expiration of the Term or the earlier termination of this Lease. Upon execution of this Lease, Tenant shall provide to Landlord a certificate of a clerk, secretary or other authorized officer of Tenant, (i) certifying to the adoption of a board resolution or other entity vote authorizing the execution of this Lease on behalf of Tenant, and (ii) identifying the person authorized to execute this Lease on behalf of Tenant.

**16.08. Joint and Several Liability.** If more than one party signs this Lease as Tenant, they shall be jointly and severally liable for all obligations of Tenant.

**16.09. Force Majeure.** If either party is delayed or hindered in or prevented from the performance of any act required under this Lease to be performed by such party by reason of (i) strikes, lockouts, or labor disputes not attributable to the failure of the party claiming the benefit of a delay due to "Force Majeure" or any of its contractors (of any tier) to perform their obligations under any applicable labor contract or law; (ii) inability to obtain labor or materials, or reasonable substitutes therefor; (iii) acts of God; (iv) governmental action, orders, restrictions or controls; (v) civil commotion, terrorism, riots, insurrection, or war; (vi) condemnation, or fire or other casualty; (vii) pandemic or other public health

emergency (including actions required by any governmental authority to be taken by Landlord or Tenant in connection with such pandemic or public health emergency); (viii) trouble in obtaining fuel, electricity, water, sewer, or telecommunication services or supplies from sources from which they are usually obtained, provided the party experiencing such trouble shall have used reasonable efforts to procure alternative sources; or (ix) other conditions similar to those hereinabove enumerated beyond the reasonable control of the party obligated to perform (collectively, “**Force Majeure**”), then performance of such act shall be excused for the period of the delay, and the period for the performance of any such act shall be extended for a period equivalent to the period of such delay. Notwithstanding the provisions of the immediately preceding sentence, financial failure, bankruptcy, lack of funds or financial inability to perform shall not constitute “Force Majeure” for purposes of this Lease. Subject to the provisions of the last sentence of this Section, in case either party is prevented or delayed from diligent construction of improvements, making any repairs, alterations or improvements, or furnishing any services or performing any other covenant or duty to be performed on the part of such party by reason of any cause reasonably beyond such party’s control, then notwithstanding any contrary provision of this Lease, such party shall not be liable to the other party therefor nor shall Tenant be entitled to any abatement or reduction of Rent by reason thereof, nor shall the same give rise to a claim in Tenant’s favor that such failure constitutes actual or constructive, total or partial, eviction from the Premises. In order to claim the benefit of a delay due to “Force Majeure”, the party experiencing such event or circumstance must (a) notify the other party within a reasonable time period after such delay commences, and (b) use all reasonable and diligent efforts to minimize the duration of such delay and the effect of the delay upon the progress of construction of its respective work as described in this Work Letter. Notwithstanding anything to the contrary contained in this Lease, no event of Force Majeure shall (i) excuse Tenant’s obligations to pay Rent and other charges due pursuant to this Lease, or (ii) be grounds for Tenant to abate any portion of Rent or any other charge due pursuant to this Lease or entitle Tenant to terminate this Lease, except as may be otherwise expressly provided in **Article 11** hereof, or (iii) excuse Landlord’s obligations to pay Landlord’s Allowance or the Space Planning Allowance when due pursuant to the Work Letter.

**16.10. No Warranties; Limitation of Liability.**

(a) No Warranties. Landlord and Tenant expressly agree that there are and shall be no implied warranties of merchantability, habitability, suitability, fitness for a particular purpose or of any other kind arising out of this Lease, and there are no warranties which extend beyond those expressly set forth in this Lease.

(b) Limitation of Liability. Tenant agrees that Landlord shall be liable only for breaches of its covenants occurring while it is owner of the Unit; *provided, however*, that if Landlord from time to time is lessee of the ground or improvements constituting the Building, then Landlord’s period of ownership of the Unit shall be deemed to mean only that period while Landlord holds such leasehold interest. Upon any sale or transfer of the Unit and the acceptance by the transferee Landlord of the obligations of the landlord hereunder first arising from and after such sale or transfer of the Unit, the transferor Landlord (including any mortgagee) shall be relieved of any liability or obligation thereafter arising and Tenant shall look solely to the transferee Landlord as aforesaid for satisfaction of such liability or obligation except for defaults by Landlord prior to such transfer (for which the transferor Landlord shall remain liable). Tenant and each person acting under Tenant agrees to look solely to Landlord’s interest in the Unit for satisfaction of any claim against Landlord. No owner, trustee, beneficiary, partner, member, manager, officer, director, agent, or employee of either Landlord (or of any mortgagee or any lender or ground or improvements lessor) or Tenant, nor any person acting under any of them shall ever be personally or individually liable to the other party to this Lease or any person claiming under or through such other party for or on account of any default hereunder or failure to perform any of its obligations hereunder, or for or on account of any amount or obligations that may be or become due under or in connection with this Lease or the Premises; nor shall it or they ever be answerable or liable in any equitable judicial proceeding or order beyond the extent of their

interest in the Unit. No deficit capital account of any member or partner of Landlord shall be deemed to be a liability of such member or partner or an asset of Landlord. Any lien obtained to enforce any judgment against Landlord shall be subject and subordinate to any mortgage encumbering the Unit (either by itself or as part of a larger mortgaged property). In no event shall Landlord (or any such persons) ever be liable to Tenant, or anyone claiming through or on behalf of Tenant, for any special, indirect, punitive or consequential damages, including lost profits or revenues. Except with respect to claims arising under Section 3.02 or Section 9.04(g) hereof, in no event shall Tenant (or any such persons) ever be liable to Landlord, or anyone claiming through or on behalf of Landlord, for any special, indirect, punitive or consequential damages, including lost profits or revenues, in an aggregate amount in excess of One Million (\$1,000,000.00) Dollars with respect to all claims therefor by Landlord against Tenant arising under or relating to this Lease.

**16.11. No Brokers.** Landlord and Tenant represent and warrant to each other that the parties named in Article 1 are the only agents, brokers, finders or other parties with whom such party has dealt who may be entitled to any commission or fee with respect to this Lease or the Premises. Landlord shall compensate Landlord's Broker and Tenant's Broker pursuant to a separate agreement between Landlord and such Brokers. Landlord and Tenant agree to indemnify and hold the other harmless from any claim, demand, cost or liability, including reasonable attorneys' fees and expenses, asserted by any party other than the parties named in Article 1 based upon dealings of that party with the indemnifying party. The provisions of this Section shall survive the expiration of the Term or the earlier termination of this Lease.

**16.12. No Waiver; Accord and Satisfaction.** No consent by Landlord or Tenant to any act or omission that otherwise would be a default shall be construed to permit other similar acts or omissions. Neither party's failure to seek redress for violation or to insist upon the strict performance of any covenant, nor the receipt by Landlord of Rent with knowledge of any breach of covenant, shall be deemed a consent to or waiver of such breach. No breach of covenant shall be implied to have been waived unless such is in writing, signed by the party benefiting from such covenant and delivered to the other party. No acceptance by Landlord of a lesser sum than the Rent due shall be deemed to be other than on account of the earliest installment of such Rent; nor shall any endorsement or statement on any check or in any letter accompanying any check or payment be deemed an accord and satisfaction; and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such installment or pursue any other right or remedy. The acceptance by Landlord of any Rent following the giving of any default and/or termination notice shall not be deemed a waiver of such notice. Tenant shall not interpose any counterclaim or counterclaims in a summary proceeding or in any action based on non-payment of Rent except to the extent that by failing to do so, Tenant will irrevocably lose the right to assert such claim in an independent action.

**16.13. Applicable Law and Construction.** This Lease may be executed in counterparts, shall be construed as a sealed instrument, and shall be governed exclusively by the provisions hereof and by the laws of the state where the Development is located without regard to principles of choice of law or conflicts of law. This Lease may be executed by electronic signature, which shall be considered as an original signature for all purposes and shall have the same force and effect as a manual signature. Delivery of a copy of this Lease bearing an original or electronic signature by facsimile transmission, electronic mail in portable document format (".pdf"), digital signature software application (such as DocuSign), or any other electronic means intended to preserve the original graphic and pictorial appearance of a document will have the same effect as physical delivery of the paper document bearing a manual or electronic signature. The covenants of Landlord and Tenant are independent, and such covenants shall be construed as such in accordance with the laws of The Commonwealth of Massachusetts. If any provision of this Lease or the application thereof to any person or circumstance is for any reason held to be invalid, the remainder of this Lease (or the remainder of such provision) and the application thereof to other persons or circumstances shall not be affected thereby. Other than contemporaneous instruments executed and delivered of even

date, if any, this Lease contains all of the agreements between Landlord and Tenant relating in any way to the Premises and supersedes all prior agreements and dealings between them. There are no oral agreements between Landlord and Tenant relating to this Lease or the Premises. This Lease may be amended only by instrument in writing executed and delivered by both Landlord and Tenant. The provisions of this Lease shall bind Landlord and Tenant and their respective successors and assigns, and shall inure to the benefit of Landlord and its successors and assigns and of Tenant and its permitted successors and assigns, subject to Article 12. The titles are for convenience only and shall not be considered a part of this Lease. This Lease shall not be construed more strictly against one party than against the other merely by virtue of the fact that it may have been prepared primarily by counsel for one of the parties, it being recognized that both Landlord and Tenant have contributed substantially and materially to the preparation of this Lease. If Tenant is granted any extension or other option, to be effective the exercise (and notice thereof) shall be unconditional; and if Tenant purports to condition the exercise of any option or to vary its terms in any manner, then the option granted shall be void and the purported exercise shall be ineffective. Time is of the essence of this Lease and each of its provisions. The enumeration of specific examples of a general provision shall not be construed as a limitation of the general provision, and the term "including" shall be deemed to mean "including, without limitation". As used in this Lease, the term "**Business Day**" shall mean any day other than a Saturday, Sunday, or day on which commercial banks in Boston, Massachusetts are authorized or required by law to remain closed. The submission of a form of this Lease or any summary of its terms shall not constitute an offer by Landlord to Tenant; but a leasehold shall only be created and the parties bound when this Lease is executed and delivered by both Landlord and Tenant and approved by the holder of any mortgage of the Premises having the right to approve this Lease. Nothing herein shall be construed as creating the relationship between Landlord and Tenant of principal and agent or of partners or joint venturers or any relationship other than landlord and tenant. This Lease and all consents, notices, approvals and all other related documents may be reproduced by any party by any electronic means or by facsimile, photographic, microfilm, microfiche or other reproduction process and the originals may be destroyed; and each party agrees that any reproductions shall be as admissible in evidence in any judicial or administrative proceeding as the original itself (whether or not the original is in existence and whether or not reproduction was made in the regular course of business), and that any further reproduction of such reproduction shall likewise be admissible. If any payment in the nature of interest provided for in this Lease shall exceed the maximum interest permitted under controlling law, as established by final judgment of a court, then such interest shall instead be at the maximum permitted interest rate as established by such judgment.

**16.14. Waiver of Trial by Jury.** LANDLORD AND TENANT HEREBY WAIVE TRIAL BY JURY IN ANY ACTION TO WHICH THEY ARE PARTIES ARISING OUT OF OR RELATING TO THIS LEASE, THE PREMISES, THE UNIT, THE BUILDING OR THE DEVELOPMENT.

**16.15. No Representations or Inducements.** In entering into this Lease Tenant acknowledges that Tenant is not relying on any representations, agreements, or promises of Landlord, or any inducements offered by Landlord to Tenant, not expressly set forth in this Lease.

**16.16. No Surrender.** No act or thing done by Landlord shall be deemed an acceptance of a surrender of the Premises, and no agreement to accept such surrender shall be valid, unless in writing signed by Landlord. No employee of Landlord or of Landlord's agents shall have any power to accept the keys of the Premises prior to the termination of this Lease. The delivery of keys to any employee of Landlord or of Landlord's agents shall not operate as a termination of the Lease or a surrender of the Premises. In the event that Tenant at any time desires to have Landlord underlet the Premises for Tenant's account, Landlord or Landlord's agents are authorized to receive the keys or other access devices for such purposes upon written notice from Tenant without releasing Tenant from any of the obligations under this Lease, and Tenant hereby relieves Landlord of any liability for loss of or damage to any of Tenant's effects in connection with such underletting.

**16.17. Arbitration.** All disputes between the parties specifically referencing this Section 16.17 shall be resolved in accordance with this Section 16.17 except (i) Landlord shall have all of its rights and remedies at law or in equity in the event of a default by Tenant, (ii) Landlord shall have the right to obtain possession of the Premises by any lawful means following a valid termination of this Lease, and (iii) any arbitration decision under this Section 16.17 shall be enforceable in accordance with applicable law in any court of proper jurisdiction.

(a) **Initial Construction Disputes.** If the dispute is with respect to matters relating to the Base Building Work or Initial Tenant Work (“**Initial Construction Disputes**”), the dispute shall initially be submitted by either party to the Landlord Representative and the Tenant Representative for resolution. The initial representatives of the parties shall be as follows, until a party gives written notice to the other parties that it is replacing its Representative:

Landlord Representative:  
Mark A. Deschenes

Tenant Representative:  
Jennifer Ziolkowski

The Landlord and Tenant Representatives shall meet one or more times to attempt to resolve such dispute within the 5-Business Day period following the date that such dispute is submitted to them. If, after such meeting(s), the parties have been unable to resolve such dispute, then such dispute shall be resolved as set forth in Section 16.17(b).

(b) **Arbitration Procedures.** Either party may give written notice of the dispute requesting resolution under this Section and submit a reasonably detailed written statement of the position and reasons therefor with such notice. The other party will, within ten (10) days (five (5) days if an Initial Construction Dispute) of receiving such written statement, submit to the party initiating the dispute resolution its own detailed written statement of the position and reasons therefor. The president of Tenant and Mark A. Deschenes, on behalf of Landlord (or such other persons as Landlord or Tenant may designate by written notice to the other), shall meet at the earliest mutually acceptable time and place, but in any case within thirty (30) days (ten (10) days if an Initial Construction Dispute) of the date of the response statement to attempt to resolve the dispute. If the matter has not been resolved within thirty (30) days (ten (10) days if an Initial Construction Dispute) of the date of the response statement, then either party may initiate arbitration of such controversy by written notice to the other (the “**Arbitration Notice**”). The arbitration shall be held before a single arbitrator. The parties shall endeavor to agree upon and name the arbitrator within the 15-day period following the giving of the Arbitration Notice. If the parties fail timely to agree upon and name the arbitrator, then unless the parties agree in writing to another procedure for designating the arbitrator, either party may by written notice given to the other and to the Boston office of the American Arbitration Association request that the arbitrator be promptly chosen by the Boston office of the American Arbitration Association. The arbitrator shall commence the arbitration hearing within ten (10) days after appointment, shall complete the arbitration hearing within thirty (30) days after the date the arbitration hearing commenced, and shall render a written arbitration decision within forty (40) days after the arbitration hearing commenced, which time periods may be extended by written agreement of the parties or by the arbitrator for good cause, except that any arbitration of Initial Construction Disputes shall be conducted on an expedited basis and shall be concluded, with a decision issued, no later than two (2) weeks after the date that such dispute was submitted for arbitration. The arbitration shall be conducted in accordance with then existing expedited procedures under the commercial arbitration rules of the American Arbitration Association; however, to the extent any provision of this paragraph is inconsistent with such procedures, the provisions of this paragraph shall govern. The decision of the arbitrator shall be final and binding upon the parties and judgment upon the decision rendered by the arbitrator may be entered in any court having jurisdiction thereof. The parties shall equally share and pay the costs of the arbitrator. Each party shall be afforded a reasonable opportunity to take discovery of the other prior to the commencement

of such arbitration consistent with the expedited dispute resolution timetable set forth in this [Section 16.17\(b\)](#); provided, however, that each party shall be limited to a maximum of twelve (12) deposition hours each. Notwithstanding the foregoing or anything herein to the contrary, the dispute resolution provisions of this Section shall not apply to a dispute, claim or controversy in which: (i) a party claiming in good faith a breach of any provision of this Lease by the other party seeks immediate equitable relief from a court of competent jurisdiction to enable the instituting party to prevent irreparable harm (alleged to arise from the alleged breach) pending agreed resolution or a grant of arbitral relief; or (ii) any claim by one party against the other party arises out of the subject matter of any court litigation or proceeding commenced by any third party against one party in which the other party is an indispensable party or third party defendant; or (iii) any claim is asserted with respect to which a third party, which is not bound and will not upon request of a party, agree to arbitrate, is an indispensable or necessary party.

**16.18. REIT/UBTI.** Tenant and Landlord intend that all amounts payable by Tenant to Landlord shall qualify as “rents from real property,” and will otherwise not constitute “impermissible tenant services income” within the meaning of Section 856(d) of the Internal Revenue Code of 1986, as amended (the “**Code**”) and the U.S. Department of Treasury Regulations promulgated thereunder (the “**Regulations**”). In the event that Landlord determines that there is any risk that any amount payable under the Lease shall not qualify as “rents from real property” or will otherwise constitute impermissible tenant services income within the meaning of Section 856(d) of the Code and the Regulations promulgated thereunder, Tenant agrees (a) to cooperate with Landlord by entering into such amendment or amendments as Landlord deems necessary to qualify all amounts payable under the Lease as “rents from real property” and (b) to permit (and, upon request, to acknowledge in writing) an assignment of certain services under the Lease, and, upon request, to enter into direct agreements with the parties furnishing such services. Notwithstanding the foregoing, Tenant shall not be required to take any action pursuant to the preceding sentence (including acknowledging in writing an assignment of services pursuant thereto) if such action would result in (A) Tenant’s incurring more than de minimis additional liability under the Lease or (B) more than a de minimis negative change in the quality or level of Building operations or services rendered to Tenant under the Lease. For the avoidance of doubt, (i) if Tenant does not acknowledge in writing an assignment as described in clause (b) above (it being agreed that Tenant shall not unreasonably withhold, condition or delay such acknowledgment so long as the criteria in clauses (A) and (B) are satisfied), then Landlord shall not be released from liability under the Lease with respect to the services so assigned; and (ii) nothing in this Section shall limit or otherwise affect Landlord’s ability to assign its entire interest in the Lease to any party as part of a conveyance of Landlord’s ownership interest in the Building.

**16.19. Patriot Act.** Notwithstanding any other provision contained in this Lease to the contrary, Tenant shall not knowingly transfer or permit the transfer of any legal or beneficial interest in Tenant to, or assign, Sublease or otherwise Transfer all or any portion of its interest under this Lease or in all or any portion of the Premises to, or enter into any Sublease to, any of the following:

(a) any person or entity (or any person or entity whose operations are directed or controlled by a person or entity) that has been convicted of or has pleaded guilty in a criminal proceeding to a felony or that is an on-going target of a grand jury investigation convened pursuant to applicable statutes concerning organized crime;

(b) any entity organized in or controlled from a country, the activities with respect to which are regulated or controlled pursuant to the following United States laws and the regulations or executive orders promulgated thereunder: (1) the Trading with the Enemy Act of 1917, 50 U.S.C. App. §1, *et seq.*, as amended; (2) the International Emergency Economic Powers Act of 1976, 50 U.S.C. §1701, *et seq.*, as amended; or (3) the Anti-Terrorism and Arms Export Amendments Act of 1989, codified at Section 6(j) of the Export Administration Act of 1979, 50 U.S.C. App. §2405W, as amended; or



(c) any person or entity with whom Landlord is restricted from doing business under either (1) Executive Order No. 13224 on Terrorist Financing (effective September 24, 2001 (as amended or supplemented from time to time, the “**Executive Order**”), or (2) the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (Public Law 10756; as amended, from time to time, the “**Patriot Act**”), or (3) the regulations of the United States Department of the Treasury Office of Foreign Assets Control (including those Persons named on the list of “Specially Designated Nationals and Blocked Persons” as modified from time to time), or other governmental action; or

(d) any Affiliate of any of the persons or entities described in the preceding paragraphs (a), (b) or (c).

Tenant hereby represents and warrants to Landlord, as of the Date of Lease, that, to the best of Tenant’s knowledge, neither Tenant nor any of its constituent partners, investors, beneficiaries or Affiliates, are in violation of any Legal Requirements relating to terrorism or money laundering, including the Executive Order and the Patriot Act and that neither Tenant, nor its constituent partners, investors, beneficiaries or Affiliates, are listed on the United States Department of the Treasury Office of Foreign Assets Control list of “Specially Designated Nationals and Blocked Persons” as modified from time to time, and that none of them is otherwise subject to the provisions of the Executive Order or the Patriot Act, or any rules or regulations promulgated thereunder. Thereafter, Tenant shall from time to time, within ten (10) days after request by Landlord, deliver to Landlord a certification stating that, to the best of Tenant’s knowledge, neither Tenant nor any Transferee, nor any of their respective constituent partners, investors, beneficiaries or Affiliates, are in violation of any Legal Requirements relating to terrorism or money laundering, including the Executive Order and the Patriot Act and that neither Tenant nor any Transferee, nor any of their respective constituent partners, investors, beneficiaries or Affiliates, are listed on the United States Department of the Treasury Office of Foreign Assets Control list of “Specially Designated Nationals and Blocked Persons” as modified from time to time, and that none of them is otherwise subject to the provisions of the Executive Order or the Patriot Act, or any rules or regulations promulgated thereunder. As used in this Lease, the term “**Affiliate**” shall mean, with respect to any specific person or entity, any other person or entity which, directly or indirectly, controls or is controlled by or is under common control with such first-mentioned person or entity. For the purposes of this definition, “control” (including, with correlative meanings, the terms “controlled by” and “under common control with”), as used with respect to any entity, shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such entity, whether through the ownership of voting stock or by contract or otherwise.

**16.20. Confidentiality.** Landlord and Tenant each agrees to keep the terms and provisions of this Lease (including all exhibits hereto) confidential, and further agrees that neither it nor its partners, managers, members, shareholders, officers, directors, employees, brokers, or attorneys shall disclose such matters or information to any other person or entity; *provided, however:* (i) either party may provide a copy of this Lease (including all exhibits hereto) and/or disclose any of its terms, provisions, covenants, obligations and conditions to its attorneys, accountants, auditors and lenders in connection with the conduct of such party’s business; and (ii) disclosure of such matters or information shall be permitted (x) subject to the provisions of this Section set forth below, to the extent to which it is required by applicable laws (including, without limitation, in connection with any required governmental filings by or on behalf of Landlord or Tenant); (y) in connection with any litigation or other proceeding between Landlord and Tenant relating to this Lease and/or the Premises; and (z) by Tenant to prospective investors, subtenants or assignees under this Lease, or by Landlord to prospective lenders, investors or purchasers of the Building. Tenant hereby acknowledges that disclosure of the terms hereof could adversely affect the ability of Landlord to negotiate other leases with respect to the Building and may impair Landlord’s relationship with other tenants of the Building, and agrees that damages alone would be an inadequate remedy for the

breach of this provision by Tenant, so that Landlord shall also have the right to seek specific performance of this provision and to seek injunctive relief to prevent its breach or continued breach. In the event that Tenant is required by any applicable law or regulation to provide to any governmental agency a copy or extract of this Lease (including any exhibits hereto), or any information relating to this Lease, (a) Tenant shall redact all economic terms from such copy or extract initially provided to such governmental agency, and (b) if, following its review of such redacted copy or extract, such governmental agency requires Tenant to provide to it some or all of the redacted economic terms and Tenant is advised by qualified competent legal counsel that Tenant is required by applicable law or regulation to provide such economic terms, then Tenant may provide such redacted economic terms; *provided, however*, that in all events Tenant shall provide only such information concerning the economic terms of this Lease as it is so advised by counsel is required by such applicable law or regulation to be provided.

(the next page is the signature page)

**LANDLORD:**

100 FORGE HOLDING LLC,  
a Delaware limited liability company

By: /s/ William P. McQuillan  
Name: William P. McQuillan  
Title: Authorized Signatory

**TENANT:**

VIGIL NEUROSCIENCE, INC.,  
a Delaware corporation

By: /s/ Jennifer Ziolkowski  
Name: Jennifer Ziolkowski  
Title: CFO

Schedule 1

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SUBSIDIARIES

Legal Name

Vigil Neuroscience Security Corporation

Jurisdiction of Incorporation

Massachusetts