

OMB APPROVAL	
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

1. Name and Address of Reporting Person* <u>Booth Bruce</u> <hr/> (Last) (First) (Middle) VIGIL NEUROSCIENCE, INC. 100 FORGE ROAD, SUITE 700 <hr/> (Street) WATERTOWN MA 02472 <hr/> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>Vigil Neuroscience, Inc. [VIGL]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) 05/03/2024	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person
	Rule 10b5-1(c) Transaction Indication <input type="checkbox"/> Check this box to indicate that a transaction was made pursuant to a contract, instruction or written plan that is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). See Instruction 10.	

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Stock Option Award (Right to Buy)	\$16.13	05/03/2024		D ⁽¹⁾			7,577	(2)	03/01/2032	Common Stock	7,577	\$9.63	0	D ⁽³⁾	
Stock Option Award (Right to Buy)	\$3.03 ⁽⁴⁾	05/03/2024		A ⁽¹⁾			7,577	(2)	03/01/2032	Common Stock	7,577	\$0	7,577	D ⁽³⁾	
Stock Option Award (Right to Buy)	\$3.1	05/03/2024		D ⁽¹⁾			12,155	(5)	06/09/2032	Common Stock	12,155	\$0	0	D ⁽³⁾	
Stock Option Award (Right to Buy)	\$3.03 ⁽⁴⁾	05/03/2024		A ⁽¹⁾			12,155	(5)	06/09/2032	Common Stock	12,155	\$0	12,155	D ⁽³⁾	
Stock Option Award (Right to Buy)	\$11.87	05/03/2024		D ⁽¹⁾			9,713	(6)	03/01/2033	Common Stock	9,713	\$7.618	0	D ⁽³⁾	
Stock Option Award (Right to Buy)	\$3.03 ⁽⁴⁾	05/03/2024		A ⁽¹⁾			9,713	(6)	03/01/2033	Common Stock	9,713	\$0	9,713	D ⁽³⁾	
Stock Option Award (Right to Buy)	\$10	05/03/2024		D ⁽¹⁾			13,928	(7)	06/07/2033	Common Stock	13,928	\$0	0	D ⁽³⁾	
Stock Option Award (Right to Buy)	\$3.03 ⁽⁴⁾	05/03/2024		A ⁽¹⁾			13,928	(7)	06/07/2033	Common Stock	13,928	\$0	13,928	D ⁽³⁾	

Explanation of Responses:

- On May 3, 2024, pursuant to the terms of the Issuer's 2021 Stock Option and Incentive Plan (the "2021 Plan"), the Issuer's Board of Directors approved a stock option award repricing, effective as of May 3, 2024 (the "Effective Date"). Except for the new exercise price (see footnote 4 below), all of the other terms of the stock option award remain unchanged. This transaction is exempt pursuant to Rule 16b-6(d) and Rule 16b-3 of the Exchange Act, as applicable.
- This stock option award was issued pursuant to the Issuer's Non-Employee Director Compensation Policy in lieu of cash compensation and the shares subject to this stock option award are fully vested and exercisable as of the date hereof.
- The Reporting Person is a member of Atlas Venture Associates XII, LLC and is obligated to transfer the economic benefit, if any, received upon the sale of the shares issuable upon exercise of the option to Atlas Venture Life Science Advisors, LLC. As such, the Reporting Person disclaims beneficial ownership of the securities reported herein for purposes of Section 16 of the Securities Exchange Act of 1934, as amended, except to the extent of his pecuniary interest therein, if any.

4. The exercise price of the stock option award is \$3.03 per share, representing the fair market value per share of the Issuer's Common Stock on the Effective Date. Under the terms of the stock option award repricing, a repriced stock option award will revert to its original exercise price if exercised during the Retention Period. The "Retention Period" commenced on the Effective Date and ends upon the earliest of (i) the one-year anniversary of the Effective Date, (ii) a Sale Event (as defined in the 2021 Plan) and (iii) the termination of the Reporting Person's Service Relationship (as defined in the 2021 Plan) by the Company other than for Cause (as defined in the 2021 Plan) or due to the Reporting Person's death or disability.

5. This stock option award was issued pursuant to the 2021 Plan and the shares subject to this stock option award are fully vested and exercisable as of the date hereof.

6. This stock option award was issued pursuant to the Issuer's Non-Employee Director Compensation Policy in lieu of cash compensation and the shares subject to this stock option award are fully vested and exercisable as of the date hereof.

7. This stock option award was issued pursuant to the 2021 Plan and shall vest and become exercisable upon the earlier to occur of (i) June 7, 2024 and (ii) the next annual meeting of the Issuer's stockholders.

/s/ Ommer Chohan, Attorney-
in-Fact 05/07/2024

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.