| SEC Form 4 | | | | | | | | | | |
|---|---------------------|---|---|------------------|--|----------|--|---|-------------------------|--|
| FORM 4 | UNITED | UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 OMB AF | | | | | | | PROVAL | |
| Check this box if no longer subject Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b). | tto STATE | Filed pursuan | | of the Securitie | EFICIAL OWNE es Exchange Act of 1934 apany Act of 1940 | ERSH | | OMB Number: 3235 Estimated average burden hours per response: | | |
| 1. Name and Address of Reporting Booth Bruce | Person [*] | | er Name and Ticker Neuroscienc | 0 | · | | tionship of Rep all applicable) Director | Reporting Person(s) to Issuer ble) 10% Owner | | |
| (Last) (First) | (Middle) | 3. Date 03/01/ | of Earliest Transac 2024 | tion (Month/D | ay/Year) | | Officer (give below) | | Other (specify elow) | |
| VIGIL NEUROSCIENCE, INC. 100 FORGE ROAD, SUITE 700 | | | nendment, Date of (| (Month/Day/Year) | 6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person | | | | | |
| (Street) WATERTOWN MA | 02472 | | | | | | Form filed by Person | y More than One | Reporting | |
| (City) (State) | (Zip) | | Rule 10b5-1(c) Transaction Indication 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-I | Derivative S | ecurities Acqu | uired, Disp | osed of, or Benefi | cially (| Owned | | | |
| 1. Title of Security (Instr. 3) | 0 | . Transaction ate Month/Day/Year) | Execution Date, Transaction Disposed Of (D) (Instr. 3, 4 | | | | 5. Amount of Securities Beneficially | 6. Owners Form: Dir (D) or Indi | of Indirect | |

| | Date (Month/Day/Year) | Execution Date, if any (Month/Day/Year) | Code (Instr. | | Disposed Of (D) (Instr. 3, 4 and 5) | | | Securities Beneficially Owned Following Reported | Form: Direct (D) or Indirect (I) (Instr. 4) | of Indirect Beneficial Ownership (Instr. 4) |
|--|------------------------------------|---|--------------|---|-------------------------------------|---------------|-------|---|---|--|
| | | | Code | v | Amount | (A) or (D) | Price | Transaction(s) (Instr. 3 and 4) | | (1130. 4) |
| | Derivative Sec (e.g., puts, cal | • | | | , | | | wned | | |

| | (e.g., puts, cans, 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. Transa Code (8) | | of | | 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 Grant (Right to Buy) | \$3.39 | 03/01/2024 | | A | | 34,612 | | (1) | 03/01/2034 | Common Stock | 34,612 | \$0.00 | 34,612 | D ⁽²⁾ | |

Explanation of Responses:

1. This option was awarded to the reporting person pursuant to the Issuer's Non-Employee Director Compensation Policy in lieu of cash compensation. The shares subject to this option shall vest and become exercisable in four equal quarterly installments on the last day of each calendar quarter, with the first installment vesting on March 31, 2024.

2. 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.

/s/ Ommer Chohan, Attorney-03/05/2024 in-Fact Date

** Signature of Reporting Person

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.

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