FORM 3

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

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

| 1. Name and Address of Reporting Person* Quinlan Amy | 2. Date of Requiring (Month/Date 06/21/20 | Statement ay/Year) | 3. Issuer Name and Ticker or Trading Symbol Vor Biopharma Inc. [VOR] | | | | | |
|--|--|-----------------------|---|---|---|---|---|--|
| (Last) (First) (Middle) C/O VOR BIOPHARMA INC. | | | Relationship of Reporting Issuer (Check all applicable) Director | 10% Owner Other (specify below) | | 5. If Amendment, Date of Original Filed (Month/Day/Year) | | |
| 100 CAMBRIDGEPARK DRIVE, SUITE 101 | | | Officer (give title below) Vice President of | | | 6. Individual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person Form filed by More than One Reporting Person | | |
| (Street) CAMBRIDGE MA 02140 | | | , rec i resident e | | | | | |
| (City) (State) (Zip) | | | | | | | | |
| 7 | 「able I - No | n-Derivat | ive Securities Benefic | cially Ov | vned | | | |
| 1. Title of Security (Instr. 4) | | | Amount of Securities Beneficially Owned (Instr. 4) | 3. Owner Form: D (D) or In (I) (Instr | Direct Own | | ature of Indirect Beneficial ership (Instr. 5) | |
| Common Stock | | | 55,812(1)(2)(3) | Г |) | | | |
| Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) | | | | | | | | |
| 1. Title of Derivative Security (Instr. 4) | 2. Date Exercisable and Expiration Date (Month/Day/Year) | | 3. Title and Amount of Securities Underlying Derivative Security (Instr. 4) | | 4. Conversion or Exercise Price of | | 5. Ownership Form: | 6. Nature of Indirect Beneficial Ownership (Instr. |
| | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | Derivative Security | | Direct (D) or Indirect (I) (Instr. 5) | 5) |
| Employee Stock Option (right to buy) | (4) | 08/30/2030 | Common Stock | 117,127 | 1.904 | | D | |
| Employee Stock Option (right to buy) | (5) | 01/31/2032 | Common Stock | 29,000 | 8.63 | | D | |
| Employee Stock Option (Right to Buy) | (6) | 02/05/2033 | Common Stock | 22,500 | 5.55 | | D | |
| Employee Stock Option (Right to Buy) | (7) | 01/28/2034 | Common Stock | 12,500 | 2.4 | 1 | D | |

Explanation of Responses:

- 1. Includes 15,000 shares underlying restricted stock units ("RSUs"). Each RSU represents the contingent right to receive one share of common stock of the Issuer. The RSUs shall vest in full on September 1, 2024, subject to the Reporting Person's continued service as of each such date.
- 2. Includes 7,735 shares underlying RSUs. Each RSU represents the contingent right to receive one share of common stock of the Issuer. The RSUs shall vest in eleven quarterly installments beginning on August 6, 2024, subject to the Reporting Person's continued service as of each such date.
- 3. Includes 17,579 shares underlying RSUs. Each RSU represents the contingent right to receive one share of common stock of the Issuer. The RSUs shall vest in fifteen quarterly installments beginning on August 1, 2024, subject to the Reporting Person's continued service as of each such date.
- 4. The original option award was for 122,127 shares. 25% of these options vested on August 28, 2021, and the remainder vest over the following three years in equal monthly installments, subject to the Reporting Person's continuous service through each such vesting date.
- 5. These options vest over four years in equal monthly installments beginning March 1, 2022, subject to the Reporting Person's continuous service through each such vesting date.
- 6. These options vest over four years in equal monthly installments beginning March 6, 2023, subject to the Reporting Person's continuous service through each such vesting date.
- 7. These options vest over four years in equal monthly installments beginning March 1, 2024, subject to the Reporting Person's continuous service through each such vesting date.

/s/ Katie Kazem, Attorneyin-Fact

06/26/2024

** 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 5 (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.

POWER OF ATTORNEY

(For Executing Form ID and Forms 3, 4 and 5)

Know all by these presents, that the undersigned hereby constitutes and appoints each of Tania Philipp and Robert Ang of Vor Biopharma Inc. (the "*Company*") and Div Gupta, Katie Kazem, David Brinton, Angela Kim, Cathy Rude and Jason Minio of Cooley LLP, signing individually, the undersigned's true and lawful attorneys-in fact and agents to:

- (1) Prepare, execute in the undersigned's name and on the undersigned's behalf, and submit to the Securities and Exchange Commission (the "SEC"), a Form ID and Forms 3, 4 and 5 (including amendments thereto and joint filing agreements in connection therewith) in accordance with Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules thereunder, in the undersigned's capacity as an officer, director or beneficial owner of more than 10% of a registered class of securities of the Company;
- (2) Do and perform any and all acts for and on behalf of the undersigned that may be necessary or desirable to prepare and execute any such Form ID and Forms 3, 4 or 5 (including amendments thereto and joint filing agreements in connection therewith) and file such forms with the SEC and any stock exchange, self-regulatory association or any similar authority; and
- Take any other action of any type whatsoever in connection with the foregoing that, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required of the undersigned, it being understood that the documents executed by the attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as the attorney-in-fact may approve in the attorney-in-fact's discretion.

The undersigned hereby grants to each such attorneyinfact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorneyinfact, or such attorneyinfact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, and their substitutes, in serving in such capacity at the request of the undersigned, are not assuming (nor is the Company assuming) any of the undersigned's responsibilities to comply with Section 16 of the Exchange Act.

This Power of Attorney shall remain in full force and effect until the earliest to occur of (a) the undersigned is no longer required to file Forms 3, 4 and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, (b) revocation by the undersigned in a signed writing delivered to the Company and the foregoing attorneysin fact or (c) as to any attorney-in-fact individually, until such attorney-in-fact is no longer employed by the Company or employed by or a partner at Cooley LLP or another law firm representing the Company, as applicable.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of the date written below.

Date: June 18, 2024

/s/ Amy Quinlan Amy Quinlan