

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(Amendment No. 3)\*

VOR BIOPHARMA INC.

(Name of Issuer)

Common Stock, \$0.0001 par value per share

(Title of Class of Securities)

(CUSIP Number)

06/30/2026

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- ☐ Rule 13d-1(b)
- ☒ Rule 13d-1(c)
- ☐ Rule 13d-1(d)

SCHEDULE 13G

CUSIP No.

Names of Reporting Persons

1

Venrock Healthcare Capital Partners III, L.P.

Check the appropriate box if a member of a Group (see instructions)

2

☒ (a)

☐ (b)

3

Sec Use Only

Citizenship or Place of Organization

4

DELAWARE

|                                                                    |                                                                                         |                          |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------|
| Number of Shares Beneficially Owned by Each Reporting Person With: | 5                                                                                       | Sole Voting Power        |
|                                                                    | 0.00                                                                                    |                          |
|                                                                    |                                                                                         | Shared Voting Power      |
|                                                                    | 6                                                                                       |                          |
|                                                                    | 5,676,370.00                                                                            |                          |
|                                                                    |                                                                                         | Sole Dispositive Power   |
|                                                                    | 7                                                                                       |                          |
|                                                                    | 0.00                                                                                    |                          |
|                                                                    |                                                                                         | Shared Dispositive Power |
|                                                                    | 8                                                                                       |                          |
|                                                                    | 5,676,370.00                                                                            |                          |
| 9                                                                  | Aggregate Amount Beneficially Owned by Each Reporting Person                            |                          |
|                                                                    | 5,676,370.00                                                                            |                          |
| 10                                                                 | Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) |                          |
|                                                                    | <input type="checkbox"/>                                                                |                          |
| 11                                                                 | Percent of class represented by amount in row (9)                                       |                          |
|                                                                    | 9.9 %                                                                                   |                          |
| 12                                                                 | Type of Reporting Person (See Instructions)                                             |                          |
|                                                                    | PN                                                                                      |                          |

## SCHEDULE 13G

### CUSIP No.

|                                                                    |                                                                                         |                          |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------|
| 1                                                                  | Names of Reporting Persons                                                              |                          |
|                                                                    | VHCP Co-Investment Holdings III, LLC                                                    |                          |
|                                                                    | Check the appropriate box if a member of a Group (see instructions)                     |                          |
| 2                                                                  | <input checked="" type="checkbox"/> (a)                                                 |                          |
|                                                                    | <input type="checkbox"/> (b)                                                            |                          |
| 3                                                                  | Sec Use Only                                                                            |                          |
| 4                                                                  | Citizenship or Place of Organization                                                    |                          |
|                                                                    | DELAWARE                                                                                |                          |
|                                                                    |                                                                                         | Sole Voting Power        |
|                                                                    | 5                                                                                       |                          |
|                                                                    | 0.00                                                                                    |                          |
| Number of Shares Beneficially Owned by Each Reporting Person With: |                                                                                         | Shared Voting Power      |
|                                                                    | 6                                                                                       |                          |
|                                                                    | 5,676,370.00                                                                            |                          |
|                                                                    |                                                                                         | Sole Dispositive Power   |
|                                                                    | 7                                                                                       |                          |
|                                                                    | 0.00                                                                                    |                          |
|                                                                    |                                                                                         | Shared Dispositive Power |
|                                                                    | 8                                                                                       |                          |
|                                                                    | 5,676,370.00                                                                            |                          |
| 9                                                                  | Aggregate Amount Beneficially Owned by Each Reporting Person                            |                          |
|                                                                    | 5,676,370.00                                                                            |                          |
| 10                                                                 | Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) |                          |
|                                                                    | <input type="checkbox"/>                                                                |                          |

|    |                                                   |
|----|---------------------------------------------------|
| 11 | Percent of class represented by amount in row (9) |
|    | 9.9 %                                             |
|    | Type of Reporting Person (See Instructions)       |
| 12 | OO                                                |

SCHEDULE 13G

CUSIP No.

|   |                                                                     |
|---|---------------------------------------------------------------------|
|   | Names of Reporting Persons                                          |
| 1 | Venrock Healthcare Capital Partners EG, L.P.                        |
|   | Check the appropriate box if a member of a Group (see instructions) |

|   |                                         |
|---|-----------------------------------------|
| 2 | <input checked="" type="checkbox"/> (a) |
|   | <input type="checkbox"/> (b)            |

|   |                                      |
|---|--------------------------------------|
| 3 | Sec Use Only                         |
|   | Citizenship or Place of Organization |

|   |          |
|---|----------|
| 4 | DELAWARE |
|---|----------|

|   |                        |
|---|------------------------|
|   | Sole Voting Power      |
| 5 | 0.00                   |
|   | Shared Voting Power    |
| 6 | 5,676,370.00           |
|   | Sole Dispositive Power |
| 7 | 0.00                   |
|   | Shared Dispositive     |
| 8 | Power                  |

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person  
With:

|  |              |
|--|--------------|
|  | 5,676,370.00 |
|--|--------------|

|   |                                                                                         |
|---|-----------------------------------------------------------------------------------------|
|   | Aggregate Amount Beneficially Owned by Each Reporting Person                            |
| 9 | 5,676,370.00                                                                            |
|   | Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) |

|    |                          |
|----|--------------------------|
| 10 | <input type="checkbox"/> |
|----|--------------------------|

|    |                                                   |
|----|---------------------------------------------------|
|    | Percent of class represented by amount in row (9) |
| 11 | 9.9 %                                             |
|    | Type of Reporting Person (See Instructions)       |
| 12 | PN                                                |

SCHEDULE 13G

CUSIP No.

|   |                                                                     |
|---|---------------------------------------------------------------------|
|   | Names of Reporting Persons                                          |
| 1 | VHCP Management III, LLC                                            |
| 2 | Check the appropriate box if a member of a Group (see instructions) |

☒ (a)

☐ (b)

3 Sec Use Only  
Citizenship or Place of Organization

4 DELAWARE

Sole Voting Power

5

0.00

Number of  
Shares

Shared Voting Power

6

Beneficially  
Owned by

5,676,370.00

Each

Sole Dispositive Power

7

Reporting

0.00

Person

Shared Dispositive

With:

Power

8

5,676,370.00

Aggregate Amount Beneficially Owned by Each Reporting Person

9

5,676,370.00

Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

10

☐

Percent of class represented by amount in row (9)

11

9.9 %

Type of Reporting Person (See Instructions)

12

OO

## SCHEDULE 13G

### CUSIP No.

Names of Reporting Persons

1

VHCP Management EG, LLC

Check the appropriate box if a member of a Group (see instructions)

2

☒ (a)

☐ (b)

3 Sec Use Only

Citizenship or Place of Organization

4

DELAWARE

Number of  
Shares

Sole Voting Power

5

Beneficially  
Owned by

0.00

Each

Shared Voting Power

6

Reporting  
Person

5,676,370.00

With:

Sole Dispositive Power

7

0.00

8 Shared Dispositive

Power

|    |                                                                                         |
|----|-----------------------------------------------------------------------------------------|
|    | 5,676,370.00                                                                            |
| 9  | Aggregate Amount Beneficially Owned by Each Reporting Person                            |
|    | 5,676,370.00                                                                            |
| 10 | Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) |
|    | <input type="checkbox"/>                                                                |
| 11 | Percent of class represented by amount in row (9)                                       |
|    | 9.9 %                                                                                   |
| 12 | Type of Reporting Person (See Instructions)                                             |
|    | OO                                                                                      |

## SCHEDULE 13G

### CUSIP No.

|    |                                                                                         |
|----|-----------------------------------------------------------------------------------------|
| 1  | Names of Reporting Persons                                                              |
|    | Nimish Shah                                                                             |
|    | Check the appropriate box if a member of a Group (see instructions)                     |
| 2  | <input checked="" type="checkbox"/> (a)                                                 |
|    | <input type="checkbox"/> (b)                                                            |
| 3  | Sec Use Only                                                                            |
| 4  | Citizenship or Place of Organization                                                    |
|    | UNITED STATES                                                                           |
|    | Sole Voting Power                                                                       |
| 5  | 0.00                                                                                    |
|    | Shared Voting Power                                                                     |
| 6  | 5,676,370.00                                                                            |
|    | Sole Dispositive Power                                                                  |
| 7  | 0.00                                                                                    |
|    | Shared Dispositive                                                                      |
| 8  | Power                                                                                   |
|    | 5,676,370.00                                                                            |
| 9  | Aggregate Amount Beneficially Owned by Each Reporting Person                            |
|    | 5,676,370.00                                                                            |
| 10 | Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) |
|    | <input type="checkbox"/>                                                                |
| 11 | Percent of class represented by amount in row (9)                                       |
|    | 9.9 %                                                                                   |
| 12 | Type of Reporting Person (See Instructions)                                             |
|    | IN                                                                                      |

## SCHEDULE 13G

**CUSIP No.**

Names of Reporting Persons

1

Bong Y. Koh

Check the appropriate box if a member of a Group (see instructions)

2

☒ (a)

☐ (b)

3

Sec Use Only

Citizenship or Place of Organization

4

UNITED STATES

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person  
With:

5

Sole Voting Power

0.00

6

Shared Voting Power

5,676,370.00

7

Sole Dispositive Power

0.00

8

Shared Dispositive  
Power

5,676,370.00

Aggregate Amount Beneficially Owned by Each Reporting Person

9

5,676,370.00

Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

10

☐

Percent of class represented by amount in row (9)

11

9.9 %

Type of Reporting Person (See Instructions)

12

IN

**SCHEDULE 13G**

**Item 1.**

(a) Name of issuer:

VOR BIOPHARMA INC.

Address of issuer's principal executive offices:

(b) 500 Boylston Street, Suite 1350, Boston, MA, 02116.

**Item 2.**

Name of person filing:

(a) The names of the persons filing this report (collectively, the "Reporting Persons") are: Venrock Healthcare Capital Partners III, L.P. ("VHCP III") VHCP Co-Investment Holdings III, LLC ("VHCP Co-Investment III") Venrock Healthcare Capital Partners EG, L.P. ("VHCP EG") VHCP Management III, LLC ("VHCP Management III") VHCP Management EG, LLC ("VHCP Management EG") Nimish Shah ("Shah") Bong Koh ("Koh") The Reporting Persons are members of a group for the purposes of this Schedule 13G/A.

Address or principal business office or, if none, residence:

(b) New York Office: 7 Bryant Park, 23rd Floor New York, NY 10018 Palo Alto Office: 3340 Hillview Avenue Palo Alto, CA 94304

(c) Citizenship:

All of the entities were organized in Delaware. Shah and Koh are both United States citizens.

Title of class of securities:

(d)

Common Stock, \$0.0001 par value per share

(e)

CUSIP No.:

Item 3. If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) ☐ Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);
- (b) ☐ Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);
- (c) ☐ Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);
- (d) ☐ Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);
- (e) ☐ An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);
- (f) ☐ An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);
- (g) ☐ A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);
- (h) ☐ A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) ☐ A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) ☐ A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J). If filing as a non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J), please specify the type of institution:
- (k) ☐ Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K).

Item 4. Ownership

Amount beneficially owned:

Row 9 of each Reporting Person's cover page to this Schedule 13G/A sets forth the aggregate number of shares of common stock of the Issuer beneficially owned by such Reporting Person as of June 30, 2026 and is incorporated by reference. The Reporting Persons' ownership of the Issuer's securities consists of (i) 642,031 shares of the Issuer's common stock and pre-funded warrants (the "Pre-Funded Warrants") exercisable for up to 792,983 shares of common stock held by VHCP III, (ii) 64,214 shares of the Issuer's common stock and Pre-Funded Warrants exercisable for up to 79,264 shares of common stock held by VHCP Co-Investment III, and (iii) 2,335,474 shares of the Issuer's common stock and Pre-Funded Warrants exercisable for up to 2,529,653 shares of common stock held by VHCP EG. The Pre-Funded Warrants contain a provision (the "Beneficial Ownership Blocker"), which precludes the exercise of the Pre-Funded Warrants to the extent that, following exercise, VHCP III, VHCP Co-Investment III and VHCP EG, together with their affiliates and other attribution parties, would own more than 9.99% of the outstanding shares of common stock. VHCP III, VHCP Co-Investment III and VHCP EG are currently prohibited from exercising the Pre-Funded Warrants to the extent that such exercise would result in beneficial ownership of more than 5,676,370 shares of common stock. VHCP Management III is the general partner of VHCP III and the manager of VHCP Co-Investment III. VHCP Management EG is the general partner of VHCP EG. Messrs. Shah and Koh are the voting members of VHCP Management III and VHCP Management EG.

Percent of class:

- (a) Due to the Beneficial Ownership Blocker listed in the Pre-Funded Warrants, each Reporting Person's beneficial ownership percentage was 9.99% as of June 30, 2026. Such percentage is based upon the sum of (i) 54,185,877 shares of the Issuer's common stock outstanding as of May 7, 2026, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (the "SEC") on May 13, 2026, and (ii) 2,634,651 shares of common stock issuable upon the exercise of the Pre-Funded Warrants. Due to field limitations of the EDGAR filing system, the percentage listed in row 11 of each Reporting Person's cover page has been rounded down to 9.9%. %
- (b)

(c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote:

Row 5 of each Reporting Person's cover page to this Schedule 13G/A sets forth the sole power to vote or to direct the vote of securities of the Issuer beneficially owned by such Reporting Person as of June 30, 2026 and is incorporated by reference.

(ii) Shared power to vote or to direct the vote:

Row 6 of each Reporting Person's cover page to this Schedule 13G/A sets forth the shared power to vote or to direct the vote of securities of the Issuer beneficially owned by such Reporting Person as of June 30, 2026 and is

incorporated by reference.

(iii) Sole power to dispose or to direct the disposition of:

Row 7 of each Reporting Person's cover page to this Schedule 13G/A sets forth the sole power to dispose or to direct the disposition of securities of the Issuer beneficially owned by such Reporting Person as of June 30, 2026 and is incorporated by reference.

(iv) Shared power to dispose or to direct the disposition of:

Row 8 of each Reporting Person's cover page to this Schedule 13G/A sets forth the shared power to dispose or to direct the disposition of securities of the Issuer beneficially owned by such Reporting Person as of June 30, 2026 and is incorporated by reference.

Item 5. Ownership of 5 Percent or Less of a Class.

Item 6. Ownership of more than 5 Percent on Behalf of Another Person.

Not Applicable

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

Not Applicable

Item 8. Identification and Classification of Members of the Group.

Not Applicable

Item 9. Notice of Dissolution of Group.

Not Applicable

Item 10. Certifications:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under § 240.14a-11.

#### SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Venrock Healthcare Capital Partners III, L.P.

Signature: /s/ Sherman G. Souther

By VHCP Management III, LLC, its General  
Name/Title: Partner, By Sherman G. Souther, Authorized  
Signatory

Date: 08/14/2026

VHCP Co-Investment Holdings III, LLC

Signature: /s/ Sherman G. Souther

By VHCP Management III, LLC, its Manager, By  
Name/Title: Sherman G. Souther, Authorized Signatory

Date: 08/14/2026

Venrock Healthcare Capital Partners EG, L.P.

Signature: /s/ Sherman G. Souther

By VHCP Management EG, LLC, its General  
Name/Title: Partner, By Sherman G. Souther, Authorized  
Signatory

Date: 08/14/2026

VHCP Management III, LLC

Signature: /s/ Sherman G. Souther

Name/Title: By Sherman G. Souther, Authorized Signatory

Date: 08/14/2026

Signature: /s/ Sherman G. Souther

Name/Title: By Sherman G. Souther, Authorized Signatory

Date: 08/14/2026

Nimish Shah

Signature: /s/ Sherman G. Souther

Name/Title: By Sherman G. Souther, Attorney-in-fact

Date: 08/14/2026

Bong Y. Koh

Signature: /s/ Sherman G. Souther

Name/Title: By Sherman G. Souther, Attorney-in-fact

Date: 08/14/2026

**Exhibit Information**

Exhibit 24.1 Power of Attorney for Nimish Shah (incorporated by reference to Exhibit 24.1 to Schedule 13G filed on September 25, 2025) Exhibit 24.2 Power of Attorney for Bong Koh (incorporated by reference to Exhibit 24.2 to Schedule 13G filed on September 25, 2025) Exhibit 99.1 Joint Filing Agreement (incorporated by reference to Exhibit 99.1 to Schedule 13G filed on September 25, 2025)