

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

SCHEDULE 13G/A

Under the Securities Exchange Act of 1934  
(Amendment No. 1)\*

**KALVISTA PHARMACEUTICALS, INC.**

(Name of Issuer)

**COMMON STOCK**

(Title of Class of Securities)

**483497103**

(CUSIP Number)

**September 10, 2018**

(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)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 483497103

1. Name of Reporting Persons  
Venrock Healthcare Capital Partners II, L.P.

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (1)

(b)

3. SEC Use Only

4. Citizenship or Place of Organization  
Delaware

5. Sole Voting Power  
0

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With:

6. Shared Voting Power  
2,044,112(2)

7. Sole Dispositive Power  
0

8. Shared Dispositive Power  
2,044,112(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,044,112(2)

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10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

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11. Percent of Class Represented by Amount in Row (9)  
12.3%(3)

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12. Type of Reporting Person (See Instructions)  
PN

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(1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G/A.

(2) Consists of 540,260 shares owned by Venrock Healthcare Capital Partners II, L.P., 218,921 shares owned by VHCP Co-Investment Holdings II, LLC, 1,168,212 shares owned by Venrock Healthcare Capital Partners III, L.P. and 116,719 shares owned by VHCP Co-Investment Holdings III, LLC.

(3) This percentage is calculated based upon 16,578,215 shares of the Issuer's common stock outstanding after the completion of the Issuer's public offering, as reported in the Issuer's Prospectus Supplement filed with the Securities and Exchange Commission on September 7, 2018.

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CUSIP No. 483497103

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1. Name of Reporting Persons  
VHCP Co-Investment Holdings II, LLC

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2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (1)

(b)

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3. SEC Use Only

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4. Citizenship or Place of Organization  
Delaware

---

5. Sole Voting Power  
0

---

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With:

6. Shared Voting Power  
2,044,112(2)

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7. Sole Dispositive Power  
0

---

8. Shared Dispositive Power  
2,044,112(2)

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,044,112(2)

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10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

---

11. Percent of Class Represented by Amount in Row (9)  
12.3%(3)

---

12. Type of Reporting Person (See Instructions)  
OO

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- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G/A.
- (2) Consists of 540,260 shares owned by Venrock Healthcare Capital Partners II, L.P., 218,921 shares owned by VHCP Co-Investment Holdings II, LLC, 1,168,212 shares owned by Venrock Healthcare Capital Partners III, L.P. and 116,719 shares owned by VHCP Co-Investment Holdings III, LLC.
- (3) This percentage is calculated based upon 16,578,215 shares of the Issuer's common stock outstanding after the completion of the Issuer's public offering, as reported in the Issuer's Prospectus Supplement filed with the Securities and Exchange Commission on September 7, 2018.

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CUSIP No. 483497103

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1. Name of Reporting Persons  
Venrock Healthcare Capital Partners III, L.P.

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2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  x(1)

(b)  o

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3. SEC Use Only

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4. Citizenship or Place of Organization  
Delaware

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5. Sole Voting Power  
0

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Number of Shares Beneficially Owned by Each Reporting Person With:

6. Shared Voting Power  
2,044,112(2)

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7. Sole Dispositive Power  
0

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8. Shared Dispositive Power  
2,044,112(2)

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,044,112(2)

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10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)  o

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11. Percent of Class Represented by Amount in Row (9)  
12.3%(3)

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12. Type of Reporting Person (See Instructions)  
PN

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- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G/A.

(2) Consists of 540,260 shares owned by Venrock Healthcare Capital Partners II, L.P., 218,921 shares owned by VHCP Co-Investment Holdings II, LLC, 1,168,212 shares owned by Venrock Healthcare Capital Partners III, L.P. and 116,719 shares owned by VHCP Co-Investment Holdings III, LLC.

(3) This percentage is calculated based upon 16,578,215 shares of the Issuer's common stock outstanding after the completion of the Issuer's public offering, as reported in the Issuer's Prospectus Supplement filed with the Securities and Exchange Commission on September 7, 2018.

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CUSIP No. 483497103

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1. Name of Reporting Persons  
VHCP Co-Investment Holdings III, LLC

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2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (1)

(b)  (0)

---

3. SEC Use Only

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4. Citizenship or Place of Organization  
Delaware

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5. Sole Voting Power  
0

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Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With:

6. Shared Voting Power  
2,044,112(2)

---

7. Sole Dispositive Power  
0

---

8. Shared Dispositive Power  
2,044,112(2)

---

9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,044,112(2)

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10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)  (0)

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11. Percent of Class Represented by Amount in Row (9)  
12.3%(3)

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12. Type of Reporting Person (See Instructions)  
OO

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(1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G/A.

(2) Consists of 540,260 shares owned by Venrock Healthcare Capital Partners II, L.P., 218,921 shares owned by VHCP Co-Investment Holdings II, LLC, 1,168,212 shares owned by Venrock Healthcare Capital Partners III, L.P. and 116,719 shares owned by VHCP Co-Investment Holdings III, LLC.

(3) This percentage is calculated based upon 16,578,215 shares of the Issuer's common stock outstanding after the completion of the Issuer's public offering, as reported in the Issuer's Prospectus Supplement filed with the Securities and Exchange Commission on September 7, 2018.

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1. Name of Reporting Persons  
VHCP Management II, LLC
- 
2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (1)

(b)  (0)

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3. SEC Use Only
- 

4. Citizenship or Place of Organization  
Delaware
- 

5. Sole Voting Power

0

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Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With:

6. Shared Voting Power

2,044,112(2)

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7. Sole Dispositive Power

0

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8. Shared Dispositive Power

2,044,112(2)

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,044,112(2)
- 

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)  (0)
- 

11. Percent of Class Represented by Amount in Row (9)  
12.3%(3)
- 

12. Type of Reporting Person (See Instructions)  
OO
- 

- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G/A.
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- (3) This percentage is calculated based upon 16,578,215 shares of the Issuer's common stock outstanding after the completion of the Issuer's public offering, as reported in the Issuer's Prospectus Supplement filed with the Securities and Exchange Commission on September 7, 2018.

1. Name of Reporting Persons  
VHCP Management III, LLC
- 

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (1)

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(b) o

3. SEC Use Only

4. Citizenship or Place of Organization  
Delaware

5. Sole Voting Power  
0

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With:

6. Shared Voting Power  
2,044,112(2)

7. Sole Dispositive Power  
0

8. Shared Dispositive Power  
2,044,112(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,044,112(2)

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) o

11. Percent of Class Represented by Amount in Row (9)  
12.3%(3)

12. Type of Reporting Person (See Instructions)  
OO

- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G/A.
- (2) Consists of 540,260 shares owned by Venrock Healthcare Capital Partners II, L.P., 218,921 shares owned by VHCP Co-Investment Holdings II, LLC, 1,168,212 shares owned by Venrock Healthcare Capital Partners III, L.P. and 116,719 shares owned by VHCP Co-Investment Holdings III, LLC.
- (3) This percentage is calculated based upon 16,578,215 shares of the Issuer's common stock outstanding after the completion of the Issuer's public offering, as reported in the Issuer's Prospectus Supplement filed with the Securities and Exchange Commission on September 7, 2018.

CUSIP No. 483497103

1. Name of Reporting Persons  
Shah, Nimish

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a) x(1)

(b) o

3. SEC Use Only

4. Citizenship or Place of Organization  
United States

	5.	Sole Voting Power 0
Number of Shares Beneficially Owned by Each Reporting Person With:	6.	Shared Voting Power 2,044,112(2)
	7.	Sole Dispositive Power 0
	8.	Shared Dispositive Power 2,044,112(2)
	9.	Aggregate Amount Beneficially Owned by Each Reporting Person 2,044,112(2)
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="radio"/>	
11.	Percent of Class Represented by Amount in Row (9) 12.3%(3)	
12.	Type of Reporting Person (See Instructions) IN	

- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G/A.
- (2) Consists of 540,260 shares owned by Venrock Healthcare Capital Partners II, L.P., 218,921 shares owned by VHCP Co-Investment Holdings II, LLC, 1,168,212 shares owned by Venrock Healthcare Capital Partners III, L.P. and 116,719 shares owned by VHCP Co-Investment Holdings III, LLC.
- (3) This percentage is calculated based upon 16,578,215 shares of the Issuer's common stock outstanding after the completion of the Issuer's public offering, as reported in the Issuer's Prospectus Supplement filed with the Securities and Exchange Commission on September 7, 2018.

CUSIP No. 483497103

1.	Name of Reporting Persons Koh, Bong	
2.	Check the Appropriate Box if a Member of a Group (See Instructions)	
(a)	<input checked="" type="checkbox"/> (1)	
(b)	<input type="checkbox"/> (0)	
3.	SEC Use Only	
4.	Citizenship or Place of Organization United States	
Number of Shares Beneficially Owned by Each Reporting Person With:	5.	Sole Voting Power 0
	6.	Shared Voting Power 2,044,112(2)
	7.	Sole Dispositive Power 0

8. Shared Dispositive Power  
2,044,112(2)

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,044,112(2)

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10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

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11. Percent of Class Represented by Amount in Row (9)  
12.3%(3)

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12. Type of Reporting Person (See Instructions)  
IN

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- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G/A.
- (2) Consists of 540,260 shares owned by Venrock Healthcare Capital Partners II, L.P., 218,921 shares owned by VHCP Co-Investment Holdings II, LLC, 1,168,212 shares owned by Venrock Healthcare Capital Partners III, L.P. and 116,719 shares owned by VHCP Co-Investment Holdings III, LLC.
- (3) This percentage is calculated based upon 16,578,215 shares of the Issuer's common stock outstanding after the completion of the Issuer's public offering, as reported in the Issuer's Prospectus Supplement filed with the Securities and Exchange Commission on September 7, 2018.

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CUSIP No. 483497103

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Introductory Note: This Schedule 13G/A is filed on behalf of Venrock Healthcare Capital Partners II, L.P., a limited partnership organized under the laws of the State of Delaware ("VHCP II LP"), VHCP Co-Investment Holdings II, LLC, a limited liability company organized under the laws of the State of Delaware ("VHCP Co-Investment II"), Venrock Healthcare Capital Partners III, L.P., a limited partnership organized under the laws of the State of Delaware ("VHCP III LP"), VHCP Co-Investment Holdings III, LLC, a limited liability company organized under the laws of the State of Delaware ("VHCP Co-Investment III"), VHCP Management II, LLC, a limited liability company organized under the laws of the State of Delaware ("VHCP Management II"), VHCP Management III, LLC, a limited liability company organized under the laws of the State of Delaware ("VHCP Management III" and collectively with VHCP II LP, VHCP Co-Investment II, VHCP III LP, VHCP Co-Investment III and VHCP Management II, the "Venrock Entities"), Nimish Shah ("Shah") and Bong Koh ("Koh") in respect of Common Stock of KalVista Pharmaceuticals, Inc.

**Item 1.**

(a) Name of Issuer

KalVista Pharmaceuticals, Inc.

(b) Address of Issuer's Principal Executive Offices

55 Cambridge Parkway  
Suite 901 East  
Cambridge, MA 02142

**Item 2.**

(a) Name of Person Filing

Venrock Healthcare Capital Partners II, L.P.  
VHCP Co-Investment Holdings II, LLC  
Venrock Healthcare Capital Partners III, L.P.  
VHCP Co-Investment Holdings III, LLC  
VHCP Management II, LLC  
VHCP Management III, LLC  
Nimish Shah  
Bong Koh

(b) Address of Principal Business Office or, if none, Residence

New York Office:

Palo Alto Office:

Boston Office:

(c) Citizenship

All of the Venrock Entities were organized in Delaware. The individuals are both United States citizens.

(d) Title of Class of Securities

Common Stock

(e) CUSIP Number

483497103

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CUSIP No. 483497103

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**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:**

Not applicable

**Item 4. Ownership**

(a) Amount Beneficially Owned as of September 10, 2018:

Venrock Healthcare Capital Partners II, L.P.	2,044,112(1)
VHCP Co-Investment Holdings II, LLC	2,044,112(1)
Venrock Healthcare Capital Partners III, L.P.	2,044,112(1)
VHCP Co-Investment Holdings III, LLC	2,044,112(1)
VHCP Management II, LLC	2,044,112(1)
VHCP Management III, LLC	2,044,112(1)
Nimish Shah	2,044,112(1)
Bong Koh	2,044,112(1)

(b) Percent of Class as of September 10, 2018:

Venrock Healthcare Capital Partners II, L.P.	12.3%
VHCP Co-Investment Holdings II, LLC	12.3%
Venrock Healthcare Capital Partners III, L.P.	12.3%
VHCP Co-Investment Holdings III, LLC	12.3%
VHCP Management II, LLC	12.3%
VHCP Management III, LLC	12.3%
Nimish Shah	12.3%
Bong Koh	12.3%

(c) Number of shares as to which the person has, as of September 10, 2018:

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

Venrock Healthcare Capital Partners II, L.P.	0
VHCP Co-Investment Holdings II, LLC	0
Venrock Healthcare Capital Partners III, L.P.	0
VHCP Co-Investment Holdings III, LLC	0
VHCP Management II, LLC	0
VHCP Management III, LLC	0
Nimish Shah	0
Bong Koh	0

11

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CUSIP No. 483497103

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

Venrock Healthcare Capital Partners II, L.P.	2,044,112(1)
VHCP Co-Investment Holdings II, LLC	2,044,112(1)
Venrock Healthcare Capital Partners III, L.P.	2,044,112(1)

VHCP Co-Investment Holdings III, LLC	2,044,112(1)
VHCP Management II, LLC	2,044,112(1)
VHCP Management III, LLC	2,044,112(1)
Nimish Shah	2,044,112(1)
Bong Koh	2,044,112(1)

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

Venrock Healthcare Capital Partners II, L.P.	0
VHCP Co-Investment Holdings II, LLC	0
Venrock Healthcare Capital Partners III, L.P.	0
VHCP Co-Investment Holdings III, LLC	0
VHCP Management II, LLC	0
VHCP Management III, LLC	0
Nimish Shah	0
Bong Koh	0

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

Venrock Healthcare Capital Partners II, L.P.	2,044,112(1)
VHCP Co-Investment Holdings II, LLC	2,044,112(1)
Venrock Healthcare Capital Partners III, L.P.	2,044,112(1)
VHCP Co-Investment Holdings III, LLC	2,044,112(1)
VHCP Management II, LLC	2,044,112(1)
VHCP Management III, LLC	2,044,112(1)
Nimish Shah	2,044,112(1)
Bong Koh	2,044,112(1)

(1) These shares are owned directly as follows: 540,260 shares are owned by Venrock Healthcare Capital Partners II, L.P., 218,921 shares are owned by VHCP Co-Investment Holdings II, LLC, 1,168,212 shares are owned by Venrock Healthcare Capital Partners III, L.P. and 116,719 shares are owned by VHCP Co-Investment Holdings III, LLC. VHCP Management II, LLC is the general partner of Venrock Healthcare Capital Partners II, L.P. and the manager of VHCP Co-Investment Holdings II, LLC. VHCP Management III, LLC is the general partner of Venrock Healthcare Capital Partners III, L.P. and the manager of VHCP Co-Investment Holdings III, LLC. Messrs. Shah and Koh are the managing members of VHCP Management II, LLC and VHCP Management III, LLC.

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

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following o.

**Item 6. Ownership of More than Five Percent on Behalf of Another Person**

Not Applicable

CUSIP No. 483497103

**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 a Group**

Not Applicable

CUSIP No. 483497103

**Item 10. Certification**

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.

Dated: September 10, 2018

**Venrock Healthcare Capital Partners II, L.P.**

By: VHCP Management II, LLC  
Its: General Partner

By: /s/ David L. Stepp  
Name: David L. Stepp  
Its: Authorized Signatory

**VHCP Co-Investment Holdings II, LLC**

By: VHCP Management II, LLC  
Its: Manager

By: /s/ David L. Stepp  
Name: David L. Stepp  
Its: Authorized Signatory

**VHCP Management II, LLC**

By: /s/ David L. Stepp  
Name: David L. Stepp  
Its: Authorized Signatory

**Nimish Shah**

By: /s/ David L. Stepp  
David L. Stepp, as attorney-in-fact

**Venrock Healthcare Capital Partners III, L.P.**

By: VHCP Management III, LLC  
Its: General Partner

By: /s/ David L. Stepp  
Name: David L. Stepp  
Its: Authorized Signatory

**VHCP Co-Investment Holdings III, LLC**

By: VHCP Management III, LLC  
Its: Manager

By: /s/ David L. Stepp  
Name: David L. Stepp  
Its: Authorized Signatory

**VHCP Management III, LLC**

By: /s/ David L. Stepp  
Name: David L. Stepp  
Its: Authorized Signatory

**Bong Koh**

By: /s/ David L. Stepp  
David L. Stepp, as attorney-in-fact

CUSIP No. 483497103

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**EXHIBITS**

- A: Joint Filing Agreement (incorporated by reference to Exhibit A to the Schedule 13G filed by the Reporting Persons on August 9, 2018).
- B: Power of Attorney for Nimish Shah (incorporated by reference to Exhibit B to the Schedule 13G filed by the Reporting Persons on August 9, 2018).
- C: Power of Attorney for Bong Koh (incorporated by reference to Exhibit C to the Schedule 13G filed by the Reporting Persons on August 9, 2018).