

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

SCHEDULE 13G/A

Under the Securities Exchange Act of 1934  
(Amendment No. 2)\*

**BioCryst Pharmaceuticals, Inc.**

(Name of Issuer)

**Common Stock, \$0.01 par value**

(Title of Class of Securities)

**09058V103**

(CUSIP Number)

**December 31, 2017**

(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. 09058V103

1. Name of Reporting Persons  
Venrock Healthcare Capital Partners, 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

Number of Shares Beneficially Owned by Each Reporting Person With: 5. Sole Voting Power  
0

6. Shared Voting Power  
2,851,385(2)

7. Sole Dispositive Power  
0

8. Shared Dispositive Power  
2,851,385(2)

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,851,385(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)  
2.9%(3)

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12. Type of Reporting Person (See Instructions)  
PN

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- 
- (1) Venrock Healthcare Capital Partners, L.P., VHCP Co-Investment Holdings, LLC, Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, VHCP Management, LLC, VHCP Management II, LLC, Bong Koh and Nimish Shah are members of a group for the purposes of this Schedule 13G/A.
- (2) Consists of 312,165 shares owned by Venrock Healthcare Capital Partners, L.P., 57,101 shares owned by VHCP Co-Investment Holdings, LLC, 1,766,064 shares owned by Venrock Healthcare Capital Partners II, L.P. and 716,055 shares owned by VHCP Co-Investment Holdings II, LLC.
- (3) This percentage is calculated based upon 98,404,761 shares of the Issuer's common stock outstanding as of October 31, 2017, as set forth in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 8, 2017.

2

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CUSIP No. 09058V103

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

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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  
2,851,385(2)

---

7. Sole Dispositive Power  
0

---

8. Shared Dispositive Power  
2,851,385(2)

---

9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,851,385(2)

---

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

---

11. Percent of Class Represented by Amount in Row (9)  
2.9%(3)

---

12. Type of Reporting Person (See Instructions)  
OO

---

- (1) Venrock Healthcare Capital Partners, L.P., VHCP Co-Investment Holdings, LLC, Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, VHCP Management, LLC, VHCP Management II, LLC, Bong Koh and Nimish Shah are members of a group for the purposes of this Schedule 13G/A.
- (2) Consists of 312,165 shares owned by Venrock Healthcare Capital Partners, L.P., 57,101 shares owned by VHCP Co-Investment Holdings, LLC, 1,766,064 shares owned by Venrock Healthcare Capital Partners II, L.P. and 716,055 shares owned by VHCP Co-Investment Holdings II, LLC.
- (3) This percentage is calculated based upon 98,404,761 shares of the Issuer's common stock outstanding as of October 31, 2017, as set forth in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 8, 2017.

3

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CUSIP No. 09058V103

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

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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  
2,851,385(2)

---

7. Sole Dispositive Power  
0

---

8. Shared Dispositive Power  
2,851,385(2)

---

9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,851,385(2)

---

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)  
2.9%(3)

---

12. Type of Reporting Person (See Instructions)  
PN

---

- (1) Venrock Healthcare Capital Partners, L.P., VHCP Co-Investment Holdings, LLC, Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, VHCP Management, LLC, VHCP Management II, LLC, Bong Koh and Nimish Shah are members of a group for the purposes of this Schedule 13G/A.
- (2) Consists of 312,165 shares owned by Venrock Healthcare Capital Partners, L.P., 57,101 shares owned by VHCP Co-Investment Holdings, LLC, 1,766,064 shares owned by Venrock Healthcare Capital Partners II, L.P. and 716,055 shares owned by VHCP Co-Investment Holdings II, LLC.
- (3) This percentage is calculated based upon 98,404,761 shares of the Issuer's common stock outstanding as of October 31, 2017, as set forth in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 8, 2017.

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CUSIP No. 09058V103

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

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

(a)  (1)

(b)  (0)

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  
2,851,385(2)

7. Sole Dispositive Power  
0

8. Shared Dispositive Power  
2,851,385(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,851,385(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)  
2.9%(3)

12. Type of Reporting Person (See Instructions)  
OO

- (1) Venrock Healthcare Capital Partners, L.P., VHCP Co-Investment Holdings, LLC, Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, VHCP Management, LLC, VHCP Management II, LLC, Bong Koh and Nimish Shah are members of a group for the purposes of this Schedule 13G/A.
- (2) Consists of 312,165 shares owned by Venrock Healthcare Capital Partners, L.P., 57,101 shares owned by VHCP Co-Investment Holdings, LLC, 1,766,064 shares owned by Venrock Healthcare Capital Partners II, L.P. and 716,055 shares owned by VHCP Co-Investment Holdings II, LLC.
- (3) This percentage is calculated based upon 98,404,761 shares of the Issuer's common stock outstanding as of October 31, 2017, as set forth in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 8, 2017.

CUSIP No. 09058V103

1. Name of Reporting Persons  
VHCP Management, LLC

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

(a)  (1)

(b)  0

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  
2,851,385(2)

7. Sole Dispositive Power  
0

8. Shared Dispositive Power  
2,851,385(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,851,385(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)  
2.9%(3)

12. Type of Reporting Person (See Instructions)  
OO

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

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(3) This percentage is calculated based upon 98,404,761 shares of the Issuer's common stock outstanding as of October 31, 2017, as set forth in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 8, 2017.

CUSIP No. 09058V103

1. Name of Reporting Persons  
VHCP Management II, LLC

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

(a)           x(1)

(b)           o

3. SEC Use Only

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4. Citizenship or Place of Organization

Delaware

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5. Sole Voting Power

          0

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With:

6. Shared Voting Power

          2,851,385(2)

7. Sole Dispositive Power

          0

8. Shared Dispositive Power

          2,851,385(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person

          2,851,385(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)

          2.9%(3)

12. Type of Reporting Person (See Instructions)

          OO

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

(2) Consists of 312,165 shares owned by Venrock Healthcare Capital Partners, L.P., 57,101 shares owned by VHCP Co-Investment Holdings, LLC, 1,766,064 shares owned by Venrock Healthcare Capital Partners II, L.P. and 716,055 shares owned by VHCP Co-Investment Holdings II, LLC.

(3) This percentage is calculated based upon 98,404,761 shares of the Issuer's common stock outstanding as of October 31, 2017, as set forth in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 8, 2017.

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CUSIP No. 09058V103

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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

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4. Citizenship or Place of Organization  
United States

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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  
2,851,385(2)

---

7. Sole Dispositive Power  
0

---

8. Shared Dispositive Power  
2,851,385(2)

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,851,385(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)  
2.9%(3)

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12. Type of Reporting Person (See Instructions)  
IN

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- 
- (1) Venrock Healthcare Capital Partners, L.P., VHCP Co-Investment Holdings, LLC, Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, VHCP Management, LLC, VHCP Management II, LLC, Bong Koh and Nimish Shah are members of a group for the purposes of this Schedule 13G/A.
- (2) Consists of 312,165 shares owned by Venrock Healthcare Capital Partners, L.P., 57,101 shares owned by VHCP Co-Investment Holdings, LLC, 1,766,064 shares owned by Venrock Healthcare Capital Partners II, L.P. and 716,055 shares owned by VHCP Co-Investment Holdings II, LLC.
- (3) This percentage is calculated based upon 98,404,761 shares of the Issuer's common stock outstanding as of October 31, 2017, as set forth in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 8, 2017.

CUSIP No. 09058V103

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1. Name of Reporting Persons  
Koh, Bong

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

(a)  (1)

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(b)

---

3. SEC Use Only

---

4. Citizenship or Place of Organization  
United States

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Number of  
Shares  
Beneficially  
Owned by  
Each

5. Sole Voting Power  
0

---

6. Shared Voting Power  
2,851,385(2)

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Reporting  
Person With:

7. Sole Dispositive Power  
0

---

8. Shared Dispositive Power  
2,851,385(2)

---

9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,851,385(2)

---

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

---

11. Percent of Class Represented by Amount in Row (9)  
2.9%(3)

---

12. Type of Reporting Person (See Instructions)  
IN

---

- (1) Venrock Healthcare Capital Partners, L.P., VHCP Co-Investment Holdings, LLC, Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, VHCP Management, LLC, VHCP Management II, LLC, Bong Koh and Nimish Shah are members of a group for the purposes of this Schedule 13G/A.
- (2) Consists of 312,165 shares owned by Venrock Healthcare Capital Partners, L.P., 57,101 shares owned by VHCP Co-Investment Holdings, LLC, 1,766,064 shares owned by Venrock Healthcare Capital Partners II, L.P. and 716,055 shares owned by VHCP Co-Investment Holdings II, LLC.
- (3) This percentage is calculated based upon 98,404,761 shares of the Issuer's common stock outstanding as of October 31, 2017, as set forth in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 8, 2017.

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CUSIP No. 09058V103

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

**Item 1.**

- (a) Name of Issuer  
BioCryst Pharmaceuticals, Inc.
- 
- (b) Address of Issuer's Principal Executive Offices  
4505 Emperor Boulevard, Suite 200  
Durham, NC 27703
- 

**Item 2.**

- (a) Name of Person Filing  
Venrock Healthcare Capital Partners, L.P.  
VHCP Co-Investment Holdings, LLC  
Venrock Healthcare Capital Partners II, L.P.  
VHCP Co-Investment Holdings II, LLC  
VHCP Management, LLC  
VHCP Management II, LLC  
Nimish Shah  
Bong Koh
- 
- (b) Address of Principal Business Office or, if none, Residence
- |  |  |   |
|--|--|---|
| New York Office:<br>530 Fifth Avenue<br>22nd Floor | Palo Alto Office:<br>3340 Hillview Avenue<br>Palo Alto, CA 94304 | Boston Office:<br>34 Farnsworth Street<br>3rd Floor |
|--|--|---|



- (c) Citizenship  
All entities were organized in Delaware. The individuals are both United States citizens.
- (d) Title of Class of Securities  
Common Stock, \$0.01 par value
- (e) CUSIP Number  
09058V103

**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

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CUSIP No. 09058V103

**Item 4. Ownership**

(a) Amount beneficially owned as of December 31, 2017:

Venrock Healthcare Capital Partners, L.P.	2,851,385(1)
VHCP Co-Investment Holdings, LLC	2,851,385(1)
Venrock Healthcare Capital Partners II, L.P.	2,851,385(1)
VHCP Co-Investment Holdings II, LLC	2,851,385(1)
VHCP Management, LLC	2,851,385(1)
VHCP Management II, LLC	2,851,385(1)
Nimish Shah	2,851,385(1)
Bong Koh	2,851,385(1)

(b) Percent of class as of December 31, 2017:

Venrock Healthcare Capital Partners, L.P.	2.9%(2)
VHCP Co-Investment Holdings, LLC	2.9%(2)
Venrock Healthcare Capital Partners II, L.P.	2.9%(2)
VHCP Co-Investment Holdings II, LLC	2.9%(2)
VHCP Management, LLC	2.9%(2)
VHCP Management II, LLC	2.9%(2)
Nimish Shah	2.9%(2)
Bong Koh	2.9%(2)

(c) Number of shares as to which the person has, as of December 31, 2017:

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

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

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CUSIP No. 09058V103

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

Venrock Healthcare Capital Partners, L.P.	2,851,385(1)
VHCP Co-Investment Holdings, LLC	2,851,385(1)
Venrock Healthcare Capital Partners II, L.P.	2,851,385(1)
VHCP Co-Investment Holdings II, LLC	2,851,385(1)
VHCP Management, LLC	2,851,385(1)
VHCP Management II, LLC	2,851,385(1)
Nimish Shah	2,851,385(1)

	Bong Koh	2,851,385(1)
(iii)	Sole power to dispose or to direct the disposition of	
	Venrock Healthcare Capital Partners, L.P.	0
	VHCP Co-Investment Holdings, LLC	0
	Venrock Healthcare Capital Partners II, L.P.	0
	VHCP Co-Investment Holdings II, LLC	0
	VHCP Management, LLC	0
	VHCP Management II, LLC	0
	Nimish Shah	0
	Bong Koh	0
(iv)	Shared power to dispose or to direct the disposition of	
	Venrock Healthcare Capital Partners, L.P.	2,851,385(1)
	VHCP Co-Investment Holdings, LLC	2,851,385(1)
	Venrock Healthcare Capital Partners II, L.P.	2,851,385(1)
	VHCP Co-Investment Holdings II, LLC	2,851,385(1)
	VHCP Management, LLC	2,851,385(1)
	VHCP Management II, LLC	2,851,385(1)
	Nimish Shah	2,851,385(1)
	Bong Koh	2,851,385(1)

- (1) These shares are owned directly as follows: 312,165 shares are owned by VHCP I, 57,101 shares are owned by VHCP Co-Invest I, 1,766,064 shares are owned by VHCP II and 716,055 shares are owned by VHCP Co-Invest II.
- (2) This percentage is calculated based upon 98,404,761 shares of the Issuer's common stock outstanding as of October 31, 2017, as set forth in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 8, 2017.

**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 .

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

Not Applicable

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CUSIP No. 09058V103

**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

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CUSIP No. 09058V103

**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.

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: February 13, 2018

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

By: VHCP Management, LLC,  
its General Partner

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

**VHCP Management, LLC**

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

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

**Nimish Shah**

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

**Bong Koh**

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

By: VHCP Management II, LLC,  
its General Partner

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

**VHCP Management II, LLC**

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

**VHCP Co-Investment Holdings, LLC**

By: VHCP Management, LLC,  
its Manager

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

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

By: VHCP Management II, LLC,  
its Manager

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

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CUSIP No. 09058V103

**EXHIBITS**

- A: Joint Filing Agreement (Incorporated by reference to Exhibit A to Schedule 13G/A filed on February 14, 2017).
- B: Power of Attorney for Bong Koh (Incorporated by reference to Exhibit B to Schedule 13G filed on March 28, 2016).
- C: Power of Attorney for Nimish Shah (Incorporated by reference to Exhibit C of Schedule 13G/A filed on February 14, 2017).