

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

SCHEDULE 13G

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

**Bellerophon Therapeutics, Inc.**

(Name of Issuer)

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

(Title of Class of Securities)

**078771102**

(CUSIP Number)

**September 29, 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. 078771102

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  
4,149,378(2)

7. Sole Dispositive Power  
0

8. Shared Dispositive Power  
4,149,378(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person  
4,149,378(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)  
7.5%(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 II"), VHCP Co-Investment Holdings II, LLC ("VHCP Co-Invest II"), VHCP Management II, LLC, Bong Koh and Nimish Shah are members of a group for purposes of this Schedule 13G.

(2) Consists of 2,952,442 shares of common stock owned by VHCP II and 1,196,936 shares of common stock owned by VHCP Co-Invest II.

(3) This percentage is calculated based upon 54,960,068 shares of the Issuer's common stock outstanding, which is the sum of (i) 35,510,234 shares outstanding as of August 3, 2017, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 7, 2017 and (ii) 19,449,834 shares issued on September 29, 2017 pursuant to the Securities Purchase Agreement dated September 26, 2017 between the Issuer and the Purchasers identified therein.

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CUSIP No. 078771102

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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)  x(1)

(b)  o

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3. SEC Use Only

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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  
4,149,378(2)

---

7. Sole Dispositive Power  
0

---

8. Shared Dispositive Power  
4,149,378(2)

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
4,149,378(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)  
7.5%(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 II"), VHCP Co-Investment Holdings II, LLC ("VHCP Co-Invest II"), VHCP Management II, LLC, Bong Koh and Nimish Shah are members of a group for purposes of this Schedule 13G.
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- (3) This percentage is calculated based upon 54,960,068 shares of the Issuer's common stock outstanding, which is the sum of (i) 35,510,234 shares outstanding as of August 3, 2017, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 7, 2017 and (ii) 19,449,834 shares issued on September 29, 2017 pursuant to the Securities Purchase Agreement dated September 26, 2017 between the Issuer and the Purchasers identified therein.

3

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CUSIP No. 078771102

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1. Name of Reporting Persons  
VHCP Management II, LLC

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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

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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  
4,149,378(2)

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7. Sole Dispositive Power  
0

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8. Shared Dispositive Power  
4,149,378(2)

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
4,149,378(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)  
7.5%(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 II"), VHCP Co-Investment Holdings II, LLC ("VHCP Co-Invest II"), VHCP Management II, LLC, Bong Koh and Nimish Shah are members of a group for purposes of this Schedule 13G.
- (2) Consists of 2,952,442 shares of common stock owned by VHCP II and 1,196,936 shares of common stock owned by VHCP Co-Invest II.

(3) This percentage is calculated based upon 54,960,068 shares of the Issuer's common stock outstanding, which is the sum of (i) 35,510,234 shares outstanding as of August 3, 2017, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 7, 2017 and (ii) 19,449,834 shares issued on September 29, 2017 pursuant to the Securities Purchase Agreement dated September 26, 2017 between the Issuer and the Purchasers identified therein.

4

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CUSIP No. 078771102

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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)  0

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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  
4,149,378(2)

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7. Sole Dispositive Power  
0

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8. Shared Dispositive Power  
4,149,378(2)

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
4,149,378(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)  
7.5%(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 II"), VHCP Co-Investment Holdings II, LLC ("VHCP Co-Invest II"), VHCP Management II, LLC, Bong Koh and Nimish Shah are members of a group for purposes of this Schedule 13G.

(2) Consists of 2,952,442 shares of common stock owned by VHCP II and 1,196,936 shares of common stock owned by VHCP Co-Invest II.

(3) This percentage is calculated based upon 54,960,068 shares of the Issuer's common stock outstanding, which is the sum of (i) 35,510,234 shares outstanding as of August 3, 2017, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 7, 2017 and (ii) 19,449,834 shares issued on September 29, 2017 pursuant to the Securities Purchase Agreement dated September 26, 2017 between the Issuer and the Purchasers identified therein.

5

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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)  (1)

(b)  0

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  
4,149,378(2)

7. Sole Dispositive Power  
0

8. Shared Dispositive Power  
4,149,378(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person  
4,149,378(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)  
7.5%(3)

12. Type of Reporting Person (See Instructions)  
IN

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

(2) Consists of 2,952,442 shares of common stock owned by VHCP II and 1,196,936 shares of common stock owned by VHCP Co-Invest II.

(3) This percentage is calculated based upon 54,960,068 shares of the Issuer's common stock outstanding, which is the sum of (i) 35,510,234 shares outstanding as of August 3, 2017, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 7, 2017 and (ii) 19,449,834 shares issued on September 29, 2017 pursuant to the Securities Purchase Agreement dated September 26, 2017 between the Issuer and the Purchasers identified therein.

**Introductory Note:** This Schedule 13G 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"), 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 II, LLC, a limited liability company organized under the laws of the State of Delaware ("VHCPM" and collectively with VHCP II and VHCP Co-Invest II, the "VHCP II Entities"), Bong Koh and Nimish Shah in respect of shares of common stock of Bellerophon Therapeutics, Inc.

**Item 1.**

- (a) Name of Issuer  
Bellerophon Therapeutics, Inc.
- (b) Address of Issuer's Principal Executive Offices  
184 Liberty Corner Road, Suite 302  
Warren, NJ 07059

**Item 2.**

- (a) Name of Person Filing  
Venrock Healthcare Capital Partners II, L.P.  
VHCP Co-Investment Holdings II, LLC  
VHCP Management II, LLC  
Bong Koh  
Nimish Shah
- (b) Address of Principal Business Office or, if none, Residence

New York Office:  
530 Fifth Avenue  
22nd Floor  
New York, NY 10036

Palo Alto Office:  
3340 Hillview Avenue  
Palo Alto, CA 94304

Boston Office:  
34 Farnsworth Street  
3rd Floor  
Boston, MA 02210

- (c) Citizenship  
Each of the VHCP II Entities was organized in Delaware. Bong Koh and Nimish Shah are both United States citizens.
- (d) Title of Class of Securities  
Common Stock, \$0.01 par value
- (e) CUSIP Number  
078771102

**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.

CUSIP No. 078771102

**Item 4. Ownership**

(a) Amount Beneficially Owned as of October 10, 2017:

Venrock Healthcare Capital Partners II, L.P.	4,149,378(1)
VHCP Co-Investment Holdings II, LLC	4,149,378(1)
VHCP Management II, LLC	4,149,378(1)
Bong Koh	4,149,378(1)
Nimish Shah	4,149,378(1)

(b) Percent of Class as of October 10, 2017:

Venrock Healthcare Capital Partners II, L.P.	7.5%(2)
VHCP Co-Investment Holdings II, LLC	7.5%(2)
VHCP Management II, LLC	7.5%(2)
Bong Koh	7.5%(2)
Nimish Shah	7.5%(2)

(c) Number of shares as to which the person has, as of October 10, 2017:

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

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

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

Venrock Healthcare Capital Partners II, L.P.	4,149,378(1)
VHCP Co-Investment Holdings II, LLC	4,149,378(1)
VHCP Management II, LLC	4,149,378(1)
Bong Koh	4,149,378(1)
Nimish Shah	4,149,378(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
VHCP Management II, LLC	0
Bong Koh	0
Nimish Shah	0

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

Venrock Healthcare Capital Partners II, L.P.	4,149,378(1)
VHCP Co-Investment Holdings II, LLC	4,149,378(1)
VHCP Management II, LLC	4,149,378(1)
Bong Koh	4,149,378(1)
Nimish Shah	4,149,378(1)

CUSIP No. 078771102

- (1) These shares are owned directly as follows: 2,952,442 shares are owned by VHCP II and 1,196,936 shares are owned by VHCP Co-Invest II.
- (2) This percentage is calculated based upon 54,960,068 shares of the Issuer's common stock outstanding, which is the sum of (i) 35,510,234 shares outstanding as of August 3, 2017, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 7, 2017 and (ii) 19,449,834 shares issued on September 29, 2017 pursuant to the Securities Purchase Agreement dated September 26, 2017 between the Issuer and the Purchasers identified therein.

**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

**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. 078771102

**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: October 10, 2017

**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 Co-Investment Holdings II, LLC**

By: VHCP Management II, LLC,  
its Manager

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

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

**Bong Koh**

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

**Nimish Shah**

CUSIP No. 078771102

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**EXHIBITS**

- A: Joint Filing Agreement
- B: Power of Attorney for Bong Koh
- C: Power of Attorney for Nimish Shah

CUSIP No. 078771102

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**EXHIBIT A**

**JOINT FILING AGREEMENT**

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the undersigned agree to the joint filing on behalf of each of them of a statement on Schedule 13G (including amendments thereto) with respect to the Common Stock of Bellerophon Therapeutics, Inc. and further agree that this agreement be included as an exhibit to such filing. Each party to the agreement expressly authorizes each other party to file on its behalf any and all amendments to such statement. Each party to this agreement agrees that this joint filing agreement may be signed in counterparts.

**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 Co-Investment Holdings II, LLC**

By: VHCP Management II, LLC,  
its Manager

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

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

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

**EXHIBIT B**

**POWER OF ATTORNEY FOR BONG KOH**

KNOW ALL BY THESE PRESENTS, that the undersigned hereby constitutes and appoints each of David L. Stepp, Sherman G. Souther and Lisa D. Harris, signing individually, the undersigned's true and lawful attorney-in fact and agent to:

- (i) prepare execute and file, for and on behalf of the undersigned, any and all documents and filings that are required or advisable to be made with the United States Securities and Exchange Commission, any stock exchange or similar authority, under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations promulgated thereunder, including without limitation (a) any Joint Filing Agreement under Rule 13d-1(k) of the Exchange Act (or any successor provision thereunder), Schedule 13D and Schedule 13G (or any successor schedules or forms adopted under the Exchange Act ) and any amendments thereto in accordance with Section 13 of the Exchange Act and the rules thereunder, and (b) Forms 3, 4 and 5 and any amendments thereto in accordance with Section 16(a) of the Exchange Act and the rules thereunder; and
- (ii) take any other action of any nature whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such 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 such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to such attorney-in-fact 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 attorney-in-fact, or such attorney-in-fact'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 attorney-in-fact, in serving in such capacity at the request of undersigned, is not assuming, nor is Venrock assuming, any of the undersigned's responsibilities to comply with the Exchange Act, including without limitation Sections 13 and 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 any form or document with respect to the undersigned's holdings of and transactions in securities issued by a company, (b) revocation by the undersigned in a signed writing delivered to the foregoing attorney-in-fact, or (c) until such attorney-in-fact shall no longer be employed by VR Management, LLC (or its successor).

IN WITNESS WHEREOF, the undersigned has cause this Power of Attorney to be executed as of this 26<sup>th</sup> day of January, 2015.

CUSIP No. 078771102

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**EXHIBIT C**

**POWER OF ATTORNEY FOR NIMISH SHAH**

KNOW ALL BY THESE PRESENTS, that the undersigned hereby constitutes and appoints each of David L. Stepp, Sherman G. Souther and Lisa D. Harris, signing individually, the undersigned's true and lawful attorney-in fact and agent to:

- (i) prepare execute and file, for and on behalf of the undersigned, any and all documents and filings that are required or advisable to be made with the United States Securities and Exchange Commission, any stock exchange or similar authority, under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations promulgated thereunder, including without limitation (a) any Joint Filing Agreement under Rule 13d-1(k) of the Exchange Act (or any successor provision thereunder), Schedule 13D and Schedule 13G (or any successor schedules or forms adopted under the Exchange Act ) and any amendments thereto in accordance with Section 13 of the Exchange Act and the rules thereunder, and (b) Forms 3, 4 and 5 and any amendments thereto in accordance with Section 16(a) of the Exchange Act and the rules thereunder; and
- (ii) take any other action of any nature whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such 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 such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to such attorney-in-fact 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 attorney-in-fact, or such attorney-in-fact'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 attorney-in-fact, in serving in such capacity at the request of undersigned, is not assuming, nor is Venrock assuming, any of the undersigned's responsibilities to comply with the Exchange Act, including without limitation Sections 13 and 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 any form or document with respect to the undersigned's holdings of and transactions in securities issued by a company, (b) revocation by the undersigned in a signed writing delivered to the foregoing attorney-in-fact, or (c) until such attorney-in-fact shall no longer be employed by VR Management, LLC (or its successor).

IN WITNESS WHEREOF, the undersigned has cause this Power of Attorney to be executed as of this 13<sup>th</sup> day of February, 2017.

/s/ Nimish Shah

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