

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

SCHEDULE 13G/A

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

Bellerophon Therapeutics, Inc.

(Name of Issuer)

Common Stock, \$0.01 par value

(Title of Class of Securities)

078771102

(CUSIP Number)

August 13, 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. 078771102

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1. Name of Reporting Persons
Venrock Associates IV, L.P.

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

(a) ☐

(b) ☒ (1)

3. SEC Use Only

4. Citizenship or Place of Organization
Delaware

5. Sole Voting Power
0

6. Shared Voting Power
962,415(2)

7. Sole Dispositive Power
0

8. Shared Dispositive Power
962,415(2)

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With:

9. Aggregate Amount Beneficially Owned by Each Reporting Person
962,415(2)

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) x(3)

11. Percent of Class Represented by Amount in Row (9)
1.7%(4)

12. Type of Reporting Person (See Instructions)
PN

- (1) This Schedule 13G/A is being filed by (i) Venrock Associates IV, L.P. (“VA4”), Venrock Partners, L.P. (“VP”), Venrock Entrepreneurs Fund IV, L.P. (“VEF4”), Venrock Management IV, LLC (“VM4”), Venrock Partners Management, LLC (“VPM”) and VEF Management IV, LLC (“VEFM” and together with VA4, VP, VEF4, VM4 and VPM, the “Venrock IV Entities”) and (ii) Venrock Healthcare Capital Partners II, L.P. (“VHCP2”), VHCP Co-Investment Holdings II, LLC (“VHCP Co-2”), VHCP Management II, LLC (“VHCPM2”), Venrock Healthcare Capital Partners III, L.P. (“VHCP3”), VHCP Co-Investment Holdings III, LLC (“VHCP Co-3”), VHCP Management III, LLC (“VHCPM3”), Nimish Shah (“Shah”) and Bong Koh (“Koh” and together with VHCP2, VHCP Co-2, VHCPM2, VHCP3, VHCP Co-3, VHCPM3 and Shah, the “VHCP Entities”). The Venrock IV Entities and the VHCP Entities are collectively referred to as the “Reporting Persons.” The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13G/A.
- (2) Consists of 783,407 shares held by VA4, 159,761 shares held by VP and 19,247 shares held by VEF4.
- (3) The shares included on rows 6, 8 and 9 do not include an aggregate of 5,512,355 shares of common stock held by the VHCP Entities. The Venrock IV Entities disclaim beneficial ownership over the shares held by the VHCP Entities.
- (4) This percentage is calculated based upon 57,798,637 shares of common stock outstanding as of July 31, 2018, as reported in the issuer’s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 1, 2018.

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1. Name of Reporting Persons
Venrock Partners, L.P.

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

(a) o

(b) x(1)

3. SEC Use Only

4. Citizenship or Place of Organization
Delaware

5. Sole Voting Power
0

6. Shared Voting Power
962,415(2)

7. Sole Dispositive Power
0

8. Shared Dispositive Power
962,415(2)

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With:

9. Aggregate Amount Beneficially Owned by Each Reporting Person
962,415(2)

| | |
|-----|--|
| 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) x(3) |
| 11. | Percent of Class Represented by Amount in Row (9) 1.7%(4) |
| 12. | Type of Reporting Person (See Instructions) PN |

- (1)

This Schedule 13G/A is being filed by (i) Venrock Associates IV, L.P. (“VA4”), Venrock Partners, L.P. (“VP”), Venrock Entrepreneurs Fund IV, L.P. (“VEF4”), Venrock Management IV, LLC (“VM4”), Venrock Partners Management, LLC (“VPM”) and VEF Management IV, LLC (“VEFM” and together with VA4, VP, VEF4, VM4 and VPM, the “Venrock IV Entities”) and (ii) Venrock Healthcare Capital Partners II, L.P. (“VHCP2”), VHCP Co-Investment Holdings II, LLC (“VHCP Co-2”), VHCP Management II, LLC (“VHCPM2”), Venrock Healthcare Capital Partners III, L.P. (“VHCP3”), VHCP Co-Investment Holdings III, LLC (“VHCP Co-3”), VHCP Management III, LLC (“VHCPM3”), Nimish Shah (“Shah”) and Bong Koh (“Koh” and together with VHCP2, VHCP Co-2, VHCPM2, VHCP3, VHCP Co-3, VHCPM3 and Shah, the “VHCP Entities”). The Venrock IV Entities and the VHCP Entities are collectively referred to as the “Reporting Persons.” The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13G/A.
- (2)

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- (3)

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- (4)

This percentage is calculated based upon 57,798,637 shares of common stock outstanding as of July 31, 2018, as reported in the issuer’s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 1, 2018.

| | | |
|--|--|--|
| 1. | Name of Reporting Persons Venrock Entrepreneurs Fund IV, L.P. | |
| 2. | Check the Appropriate Box if a Member of a Group (See Instructions) | |
| | (a) | <input type="radio"/> |
| | (b) | <input checked="" type="radio"/> (1) |
| 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 962,415(2) |
| | 7. | Sole Dispositive Power 0 |
| | 8. | Shared Dispositive Power 962,415(2) |
| 9. | Aggregate Amount Beneficially Owned by Each Reporting Person 962,415(2) | |
| 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) x(3) | |
| 11. | Percent of Class Represented by Amount in Row (9) | |

12. Type of Reporting Person (See Instructions)
PN

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1. Name of Reporting Persons
Venrock Management IV, LLC

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

(a) ☐

(b) ☒ (1)

3. SEC Use Only

4. Citizenship or Place of Organization
Delaware

5. Sole Voting Power
0

6. Shared Voting Power
962,415(2)

7. Sole Dispositive Power
0

8. Shared Dispositive Power
962,415(2)

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With:

9. Aggregate Amount Beneficially Owned by Each Reporting Person
962,415(2)

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) x(3)

11. Percent of Class Represented by Amount in Row (9)
1.7%(4)

12. Type of Reporting Person (See Instructions)

- (1) This Schedule 13G/A is being filed by (i) Venrock Associates IV, L.P. (“VA4”), Venrock Partners, L.P. (“VP”), Venrock Entrepreneurs Fund IV, L.P. (“VEF4”), Venrock Management IV, LLC (“VM4”), Venrock Partners Management, LLC (“VPM”) and VEF Management IV, LLC (“VEFM”) and together with VA4, VP, VEF4, VM4 and VPM, the “Venrock IV Entities”) and (ii) Venrock Healthcare Capital Partners II, L.P. (“VHCP2”), VHCP Co-Investment Holdings II, LLC (“VHCP Co-2”), VHCP Management II, LLC (“VHCPM2”), Venrock Healthcare Capital Partners III, L.P. (“VHCP3”), VHCP Co-Investment Holdings III, LLC (“VHCP Co-3”), VHCP Management III, LLC (“VHCPM3”), Nimish Shah (“Shah”) and Bong Koh (“Koh”) and together with VHCP2, VHCP Co-2, VHCPM2, VHCP3, VHCP Co-3, VHCPM3 and Shah, the “VHCP Entities”). The Venrock IV Entities and the VHCP Entities are collectively referred to as the “Reporting Persons.” The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13G/A.
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| | | |
|--|---|--|
| 1. | Name of Reporting Persons | Venrock Partners Management, LLC |
| <hr/> | | |
| 2. | Check the Appropriate Box if a Member of a Group (See Instructions) | |
| | (a) | o |
| | (b) | x(1) |
| <hr/> | | |
| 3. | SEC Use Only | |
| <hr/> | | |
| 4. | Citizenship or Place of Organization | Delaware |
| <hr/> | | |
| Number of Shares Beneficially Owned by Each Reporting Person With: | 5. | Sole Voting Power 0 |
| | 6. | Shared Voting Power 962,415(2) |
| | 7. | Sole Dispositive Power 0 |
| | 8. | Shared Dispositive Power 962,415(2) |
| <hr/> | | |
| 9. | Aggregate Amount Beneficially Owned by Each Reporting Person | 962,415(2) |
| <hr/> | | |
| 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) | x(3) |
| <hr/> | | |
| 11. | Percent of Class Represented by Amount in Row (9) | 1.7%(4) |
| <hr/> | | |
| 12. | Type of Reporting Person (See Instructions) | OO |
| <hr/> | | |

- (1) This Schedule 13G/A is being filed by (i) Venrock Associates IV, L.P. (“VA4”), Venrock Partners, L.P. (“VP”), Venrock Entrepreneurs Fund IV, L.P. (“VEF4”), Venrock Management IV, LLC (“VM4”), Venrock Partners Management, LLC (“VPM”) and VEF Management IV, LLC (“VEFM” and together with VA4, VP, VEF4, VM4 and VPM, the “Venrock IV Entities”) and (ii) Venrock Healthcare Capital Partners II, L.P. (“VHCP2”), VHCP Co-Investment Holdings II, LLC (“VHCP Co-2”), VHCP Management II, LLC (“VHCPM2”), Venrock Healthcare Capital Partners III, L.P. (“VHCP3”), VHCP Co-Investment Holdings III, LLC (“VHCP Co-3”), VHCP Management III, LLC (“VHCPM3”), Nimish Shah (“Shah”) and Bong Koh (“Koh” and together with VHCP2, VHCP Co-2, VHCPM2, VHCP3, VHCP Co-3, VHCPM3 and Shah, the “VHCP Entities”). The Venrock IV Entities and the VHCP Entities are collectively referred to as the “Reporting Persons.” The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13G/A.
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| | | |
|--|---|--|
| CUSIP No. 078771102 | | Page 7 of 26 |
| 1. | Name of Reporting Persons VEF Management IV, LLC | |
| 2. | Check the Appropriate Box if a Member of a Group (See Instructions) | |
| | (a) | <input type="radio"/> |
| | (b) | <input checked="" type="radio"/> (1) |
| 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 962,415(2) |
| | 7. | Sole Dispositive Power 0 |
| | 8. | Shared Dispositive Power 962,415(2) |
| 9. | Aggregate Amount Beneficially Owned by Each Reporting Person 962,415(2) | |
| 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input checked="" type="checkbox"/> (3) | |
| 11. | Percent of Class Represented by Amount in Row (9) 1.7%(4) | |
| 12. | Type of Reporting Person (See Instructions) OO | |

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VHCP Co-Investment Holdings III, LLC (“VHCP Co-3”), VHCP Management III, LLC (“VHCPM3”), Nimish Shah (“Shah”) and Bong Koh (“Koh”) and together with VHCP2, VHCP Co-2, VHCPM2, VHCP3, VHCP Co-3, VHCPM3 and Shah, the “VHCP Entities”). The Venrock IV Entities and the VHCP Entities are collectively referred to as the “Reporting Persons.” The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13G/A.

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| | |
|--|--|
| 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) <input type="radio"/> (b) <input checked="" type="radio"/> |
| 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 5,512,355(2) |
| | 7. Sole Dispositive Power 0 |
| | 8. Shared Dispositive Power 5,512,355(2) |
| 9. | Aggregate Amount Beneficially Owned by Each Reporting Person 5,512,355(2) |
| 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input checked="" type="checkbox"/> |
| 11. | Percent of Class Represented by Amount in Row (9) 9.5%(4) |
| 12. | Type of Reporting Person (See Instructions) PN |

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- (2) Consists of 2,952,442 shares held by VHCP2, 1,196,936 shares held by VHCP Co-2, 1,239,082 shares held by VHCP3 and 123,895 shares held by VHCP Co-3.
- (3) The shares included on rows 6, 8 and 9 do not include an aggregate of 962,415 shares of common stock held by the Venrock IV Entities. The VHCP Entities disclaim beneficial ownership over the shares held by the Venrock IV Entities.
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CUSIP No. 078771102

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| | |
|--|---|
| 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) | <input type="radio"/> |
| (b) | <input checked="" type="radio"/> (1) |
| 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 5,512,355(2) |
| | 7. Sole Dispositive Power 0 |
| | 8. Shared Dispositive Power 5,512,355(2) |
| 9. | Aggregate Amount Beneficially Owned by Each Reporting Person 5,512,355(2) |
| 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input checked="" type="checkbox"/> (3) |
| 11. | Percent of Class Represented by Amount in Row (9) 9.5%(4) |
| 12. | Type of Reporting Person (See Instructions) OO |

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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) | <input type="radio"/> |
| (b) | <input checked="" type="radio"/> (1) |
| 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 5,512,355(2) |
| | 7. Sole Dispositive Power 0 |
| | 8. Shared Dispositive Power 5,512,355(2) |
| 9. | Aggregate Amount Beneficially Owned by Each Reporting Person 5,512,355(2) |
| 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input checked="" type="checkbox"/> (3) |
| 11. | Percent of Class Represented by Amount in Row (9) 9.5%(4) |
| 12. | Type of Reporting Person (See Instructions) OO |

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| | |
|--|---|
| 1. | Name of Reporting Persons Venrock Healthcare Capital Partners III, L.P. |
| 2. | Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="radio"/> o (b) <input checked="" type="radio"/> x(1) |
| 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 5,512,355(2) |
| | 7. Sole Dispositive Power 0 |
| | 8. Shared Dispositive Power 5,512,355(2) |
| 9. | Aggregate Amount Beneficially Owned by Each Reporting Person 5,512,355(2) |
| 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input checked="" type="checkbox"/> x(3) |
| 11. | Percent of Class Represented by Amount in Row (9) 9.5%(4) |
| 12. | Type of Reporting Person (See Instructions) PN |

(1) This Schedule 13G/A is being filed by (i) Venrock Associates IV, L.P. ("VA4"), Venrock Partners, L.P. ("VP"), Venrock Entrepreneurs Fund IV, L.P. ("VEF4"), Venrock Management IV, LLC ("VM4"), Venrock Partners Management, LLC ("VPM") and VEF Management IV, LLC ("VEFM" and together with VA4, VP, VEF4, VM4 and VPM, the "Venrock IV Entities") and (ii) Venrock Healthcare Capital Partners II, L.P. ("VHCP2"), VHCP Co-Investment Holdings II, LLC ("VHCP Co-2"), VHCP Management II, LLC ("VHCPM2"), Venrock Healthcare Capital Partners III, L.P. ("VHCP3"), VHCP Co-Investment Holdings III, LLC ("VHCP Co-3"), VHCP Management III, LLC ("VHCPM3"), Nimish Shah ("Shah") and Bong Koh ("Koh" and together with VHCP2, VHCP Co-2, VHCPM2, VHCP3, VHCP Co-3, VHCPM3 and Shah, the "VHCP Entities"). The Venrock IV Entities and the VHCP Entities are collectively referred to as the "Reporting Persons." The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13G/A.

(2) Consists of 2,952,442 shares held by VHCP2, 1,196,936 shares held by VHCP Co-2, 1,239,082 shares held by VHCP3 and 123,895 shares held by VHCP Co-3.

(3) The shares included on rows 6, 8 and 9 do not include an aggregate of 962,415 shares of common stock held by the Venrock IV Entities. The VHCP Entities disclaim beneficial ownership over the shares held by the Venrock IV Entities.

(4) This percentage is calculated based upon 57,798,637 shares of common stock outstanding as of July 31, 2018, as reported in the issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 1, 2018.

| | | |
|--|---|--|
| 1. | Name of Reporting Persons | VHCP Co-Investment Holdings III, LLC |
| 2. | Check the Appropriate Box if a Member of a Group (See Instructions) | |
| (a) | | o |
| (b) | | x(1) |
| 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 5,512,355(2) |
| | 7. | Sole Dispositive Power 0 |
| | 8. | Shared Dispositive Power 5,512,355(2) |
| | 9. | Aggregate Amount Beneficially Owned by Each Reporting Person 5,512,355(2) |
| 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) | x(3) |
| 11. | Percent of Class Represented by Amount in Row (9) | 9.5%(4) |
| 12. | Type of Reporting Person (See Instructions) | OO |

(1) This Schedule 13G/A is being filed by (i) Venrock Associates IV, L.P. (“VA4”), Venrock Partners, L.P. (“VP”), Venrock Entrepreneurs Fund IV, L.P. (“VEF4”), Venrock Management IV, LLC (“VM4”), Venrock Partners Management, LLC (“VPM”) and VEF Management IV, LLC (“VEFM” and together with VA4, VP, VEF4, VM4 and VPM, the “Venrock IV Entities”) and (ii) Venrock Healthcare Capital Partners II, L.P. (“VHCP2”), VHCP Co-Investment Holdings II, LLC (“VHCP Co-2”), VHCP Management II, LLC (“VHCPM2”), Venrock Healthcare Capital Partners III, L.P. (“VHCP3”), VHCP Co-Investment Holdings III, LLC (“VHCP Co-3”), VHCP Management III, LLC (“VHCPM3”), Nimish Shah (“Shah”) and Bong Koh (“Koh” and together with VHCP2, VHCP Co-2, VHCPM2, VHCP3, VHCP Co-3, VHCPM3 and Shah, the “VHCP Entities”). The Venrock IV Entities and the VHCP Entities are collectively referred to as the “Reporting Persons.” The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13G/A.

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(4) This percentage is calculated based upon 57,798,637 shares of common stock outstanding as of July 31, 2018, as reported in the issuer’s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 1, 2018.

| | |
|--|--|
| 1. | Name of Reporting Persons VHCP Management III, LLC |
| 2. | Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="radio"/> (b) <input checked="" type="radio"/> |
| 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 5,512,355(2) |
| | 7. Sole Dispositive Power 0 |
| | 8. Shared Dispositive Power 5,512,355(2) |
| 9. | Aggregate Amount Beneficially Owned by Each Reporting Person 5,512,355(2) |
| 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input checked="" type="checkbox"/> |
| 11. | Percent of Class Represented by Amount in Row (9) 9.5%(4) |
| 12. | Type of Reporting Person (See Instructions) OO |

(1) This Schedule 13G/A is being filed by (i) Venrock Associates IV, L.P. (“VA4”), Venrock Partners, L.P. (“VP”), Venrock Entrepreneurs Fund IV, L.P. (“VEF4”), Venrock Management IV, LLC (“VM4”), Venrock Partners Management, LLC (“VPM”) and VEF Management IV, LLC (“VEFM” and together with VA4, VP, VEF4, VM4 and VPM, the “Venrock IV Entities”) and (ii) Venrock Healthcare Capital Partners II, L.P. (“VHCP2”), VHCP Co-Investment Holdings II, LLC (“VHCP Co-2”), VHCP Management II, LLC (“VHCPM2”), Venrock Healthcare Capital Partners III, L.P. (“VHCP3”), VHCP Co-Investment Holdings III, LLC (“VHCP Co-3”), VHCP Management III, LLC (“VHCPM3”), Nimish Shah (“Shah”) and Bong Koh (“Koh” and together with VHCP2, VHCP Co-2, VHCPM2, VHCP3, VHCP Co-3, VHCPM3 and Shah, the “VHCP Entities”). The Venrock IV Entities and the VHCP Entities are collectively referred to as the “Reporting Persons.” The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13G/A.

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(3) The shares included on rows 6, 8 and 9 do not include an aggregate of 962,415 shares of common stock held by the Venrock IV Entities. The VHCP Entities disclaim beneficial ownership over the shares held by the Venrock IV Entities.

(4) This percentage is calculated based upon 57,798,637 shares of common stock outstanding as of July 31, 2018, as reported in the issuer’s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 1, 2018.

| | |
|--|--|
| 1. | Name of Reporting Persons Shah, Nimish |
| <hr/> | |
| 2. | Check the Appropriate Box if a Member of a Group (See Instructions) |
| (a) | <input type="radio"/> o |
| (b) | <input checked="" type="radio"/> x(1) |
| <hr/> | |
| 3. | SEC Use Only |
| <hr/> | |
| 4. | Citizenship or Place of Organization United States |
| <hr/> | |
| Number of Shares Beneficially Owned by Each Reporting Person With: | 5. Sole Voting Power 0 |
| | <hr/> |
| | 6. Shared Voting Power 5,512,355(2) |
| | <hr/> |
| | 7. Sole Dispositive Power 0 |
| | <hr/> |
| | 8. Shared Dispositive Power 5,512,355(2) |
| | <hr/> |
| 9. | Aggregate Amount Beneficially Owned by Each Reporting Person 5,512,355(2) |
| <hr/> | |
| 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input checked="" type="checkbox"/> x(3) |
| <hr/> | |
| 11. | Percent of Class Represented by Amount in Row (9) 9.5%(4) |
| <hr/> | |
| 12. | Type of Reporting Person (See Instructions) IN |
| <hr/> | |

- (1) This Schedule 13G/A is being filed by (i) Venrock Associates IV, L.P. ("VA4"), Venrock Partners, L.P. ("VP"), Venrock Entrepreneurs Fund IV, L.P. ("VEF4"), Venrock Management IV, LLC ("VM4"), Venrock Partners Management, LLC ("VPM") and VEF Management IV, LLC ("VEFM" and together with VA4, VP, VEF4, VM4 and VPM, the "Venrock IV Entities") and (ii) Venrock Healthcare Capital Partners II, L.P. ("VHCP2"), VHCP Co-Investment Holdings II, LLC ("VHCP Co-2"), VHCP Management II, LLC ("VHCPM2"), Venrock Healthcare Capital Partners III, L.P. ("VHCP3"), VHCP Co-Investment Holdings III, LLC ("VHCP Co-3"), VHCP Management III, LLC ("VHCPM3"), Nimish Shah ("Shah") and Bong Koh ("Koh") and together with VHCP2, VHCP Co-2, VHCPM2, VHCP3, VHCP Co-3, VHCPM3 and Shah, the "VHCP Entities"). The Venrock IV Entities and the VHCP Entities are collectively referred to as the "Reporting Persons." The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13G/A.
- (2) Consists of 2,952,442 shares held by VHCP2, 1,196,936 shares held by VHCP Co-2, 1,239,082 shares held by VHCP3 and 123,895 shares held by VHCP Co-3.
- (3) The shares included on rows 6, 8 and 9 do not include an aggregate of 962,415 shares of common stock held by the Venrock IV Entities. The VHCP Entities disclaim beneficial ownership over the shares held by the Venrock IV Entities.
- (4) This percentage is calculated based upon 57,798,637 shares of common stock outstanding as of July 31, 2018, as reported in the issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 1, 2018.

| | |
|----|--|
| 1. | Name of Reporting Persons Koh, Bong |
|----|--|

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

(a) ☐

(b) ☒ (1)

3. SEC Use Only

4. Citizenship or Place of Organization
United States

5. Sole Voting Power
0

6. Shared Voting Power
5,512,355(2)

7. Sole Dispositive Power
0

8. Shared Dispositive Power
5,512,355(2)

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With:

9. Aggregate Amount Beneficially Owned by Each Reporting Person
5,512,355(2)

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) ☒ (3)

11. Percent of Class Represented by Amount in Row (9)
9.5%(4)

12. Type of Reporting Person (See Instructions)
IN

- (1) This Schedule 13G/A is being filed by (i) Venrock Associates IV, L.P. ("VA4"), Venrock Partners, L.P. ("VP"), Venrock Entrepreneurs Fund IV, L.P. ("VEF4"), Venrock Management IV, LLC ("VM4"), Venrock Partners Management, LLC ("VPM") and VEF Management IV, LLC ("VEFM" and together with VA4, VP, VEF4, VM4 and VPM, the "Venrock IV Entities") and (ii) Venrock Healthcare Capital Partners II, L.P. ("VHCP2"), VHCP Co-Investment Holdings II, LLC ("VHCP Co-2"), VHCP Management II, LLC ("VHCPM2"), Venrock Healthcare Capital Partners III, L.P. ("VHCP3"), VHCP Co-Investment Holdings III, LLC ("VHCP Co-3"), VHCP Management III, LLC ("VHCPM3"), Nimish Shah ("Shah") and Bong Koh ("Koh" and together with VHCP2, VHCP Co-2, VHCPM2, VHCP3, VHCP Co-3, VHCPM3 and Shah, the "VHCP Entities"). The Venrock IV Entities and the VHCP Entities are collectively referred to as the "Reporting Persons." The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13G/A.
- (2) Consists of 2,952,442 shares held by VHCP2, 1,196,936 shares held by VHCP Co-2, 1,239,082 shares held by VHCP3 and 123,895 shares held by VHCP Co-3.
- (3) The shares included on rows 6, 8 and 9 do not include an aggregate of 962,415 shares of common stock held by the Venrock IV Entities. The VHCP Entities disclaim beneficial ownership over the shares held by the Venrock IV Entities.
- (4) This percentage is calculated based upon 57,798,637 shares of common stock outstanding as of July 31, 2018, as reported in the issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 1, 2018.

Introductory Note: This Schedule 13G/A is filed on behalf of the following entities and individuals in respect of shares of common stock of Bellerophon Therapeutics, Inc.:

- Venrock Associates IV, L.P., a limited partnership organized under the laws of the State of Delaware ("VA4");
- Venrock Partners, L.P., a limited partnership organized under the laws of the State of Delaware ("VP");

- Venrock Entrepreneurs Fund IV, L.P., a limited partnership organized under the laws of the State of Delaware (“VEF4”);
- Venrock Management IV, LLC, a limited liability company organized under the laws of the State of Delaware (“VM4”), the general partner of VA4;
- Venrock Partners Management, LLC, a limited liability company organized under the laws of the State of Delaware (“VPM”), the general partner of VP;
- VEF Management IV, LLC, a limited liability company organized under the laws of the State of Delaware (“VEFM”), the general partner of VEF4;
- Venrock Healthcare Partners II, L.P., a limited partnership organized under the laws of the State of Delaware (“VHCP2”);
- VHCP Co-Investment Holdings II, LLC, a limited liability company organized under the laws of the State of Delaware (“VHCP Co-2”);
- VHCP Management II, LLC, a limited liability company organized under the laws of the State of Delaware (“VHCPM2”), the general partner of VHCP2 and the manager of VHCP Co-2;
- Venrock Healthcare Partners III, L.P., a limited partnership organized under the laws of the State of Delaware (“VHCP3”);
- VHCP Co-Investment Holdings III, LLC, a limited liability company organized under the laws of the State of Delaware (“VHCP Co-3”);
- VHCP Management III, LLC, a limited liability company organized under the laws of the State of Delaware (“VHCPM3”), the general partner of VHCP3 and the manager of VHCP Co-3;
- Nimish Shah, a managing member of VHCPM2 and VHCPM3; and
- Bong Koh, a managing member of VHCPM2 and VHCPM3.

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 Associates IV, L.P.
Venrock Partners, L.P.
Venrock Entrepreneurs Fund IV, L.P.
Venrock Management IV, LLC
Venrock Partners Management, LLC
VEF Management IV, LLC
Venrock Healthcare Capital Partners II, L.P.
VHCP Co-Investment Holdings II, LLC
VHCP Management II, LLC
Venrock Healthcare Capital Partners III, L.P.

VHCP Co-Investment Holdings III, 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: |
| 7 Bryant Park | 3340 Hillview Avenue | 34 Farnsworth Street |
| 23 rd Floor | Palo Alto, CA 94304 | 3rd Floor |
| New York, NY 10018 | | Boston, MA 02210 |
-
- (c) Citizenship
Each of the 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

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 August 17, 2018:

| | |
|---|--------------|
| Venrock Associates IV, L.P. | 962,415(1) |
| Venrock Partners, L.P. | 962,415(1) |
| Venrock Entrepreneurs Fund IV, L.P. | 962,415(1) |
| Venrock Management IV, LLC | 962,415(1) |
| Venrock Partners Management, LLC | 962,415(1) |
| VEF Management IV, LLC | 962,415(1) |
| Venrock Healthcare Capital Partners II, L.P. | 5,512,355(2) |
| VHCP Co-Investment Holdings II, LLC | 5,512,355(2) |
| VHCP Management II, LLC | 5,512,355(2) |
| Venrock Healthcare Capital Partners III, L.P. | 5,512,355(2) |
| VHCP Co-Investment Holdings III, LLC | 5,512,355(2) |
| VHCP Management III, LLC | 5,512,355(2) |
| Nimish Shah | 5,512,355(2) |
| Bong Koh | 5,512,355(2) |

(b) Percent of Class as of August 17, 2018:

CUSIP No. 078771102

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| | |
|---|---------|
| Venrock Associates IV, L.P. | 1.7%(3) |
| Venrock Partners, L.P. | 1.7%(3) |
| Venrock Entrepreneurs Fund IV, L.P. | 1.7%(3) |
| Venrock Management IV, LLC | 1.7%(3) |
| Venrock Partners Management, LLC | 1.7%(3) |
| VEF Management IV, LLC | 1.7%(3) |
| Venrock Healthcare Capital Partners II, L.P. | 9.5%(3) |
| VHCP Co-Investment Holdings II, LLC | 9.5%(3) |
| VHCP Management II, LLC | 9.5%(3) |
| Venrock Healthcare Capital Partners III, L.P. | 9.5%(3) |
| VHCP Co-Investment Holdings III, LLC | 9.5%(3) |
| VHCP Management III, LLC | 9.5%(3) |
| Nimish Shah | 9.5%(3) |
| Bong Koh | 9.5%(3) |

(c) Number of shares as to which the person has, as of August 17, 2018:

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

| | |
|---|---|
| Venrock Associates IV, L.P. | 0 |
| Venrock Partners, L.P. | 0 |
| Venrock Entrepreneurs Fund IV, L.P. | 0 |
| Venrock Management IV, LLC | 0 |
| Venrock Partners Management, LLC | 0 |
| VEF Management IV, LLC | 0 |
| Venrock Healthcare Capital Partners II, L.P. | 0 |
| VHCP Co-Investment Holdings II, LLC | 0 |
| VHCP Management II, LLC | 0 |
| Venrock Healthcare Capital Partners III, L.P. | 0 |
| VHCP Co-Investment Holdings III, LLC | 0 |
| VHCP Management III, LLC | 0 |
| Nimish Shah | 0 |
| Bong Koh | 0 |

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

| | |
|--|--------------|
| Venrock Associates IV, L.P. | 962,415(1) |
| Venrock Partners, L.P. | 962,415(1) |
| Venrock Entrepreneurs Fund IV, L.P. | 962,415(1) |
| Venrock Management IV, LLC | 962,415(1) |
| Venrock Partners Management, LLC | 962,415(1) |
| VEF Management IV, LLC | 962,415(1) |
| Venrock Healthcare Capital Partners II, L.P. | 5,512,355(2) |
| VHCP Co-Investment Holdings II, LLC | 5,512,355(2) |

| | |
|---|--------------|
| VHCP Management II, LLC | 5,512,355(2) |
| Venrock Healthcare Capital Partners III, L.P. | 5,512,355(2) |
| VHCP Co-Investment Holdings III, LLC | 5,512,355(2) |
| VHCP Management III, LLC | 5,512,355(2) |
| Nimish Shah | 5,512,355(2) |
| Bong Koh | 5,512,355(2) |

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

| | |
|---|---|
| Venrock Associates IV, L.P. | 0 |
| Venrock Partners, L.P. | 0 |
| Venrock Entrepreneurs Fund IV, L.P. | 0 |
| Venrock Management IV, LLC | 0 |
| Venrock Partners Management, LLC | 0 |
| VEF Management IV, LLC | 0 |
| Venrock Healthcare Capital Partners II, L.P. | 0 |
| VHCP Co-Investment Holdings II, LLC | 0 |
| VHCP Management II, LLC | 0 |
| Venrock Healthcare Capital Partners III, L.P. | 0 |
| VHCP Co-Investment Holdings III, 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 Associates IV, L.P. | 962,415(1) |
| Venrock Partners, L.P. | 962,415(1) |
| Venrock Entrepreneurs Fund IV, L.P. | 962,415(1) |
| Venrock Management IV, LLC | 962,415(1) |
| Venrock Partners Management, LLC | 962,415(1) |
| VEF Management IV, LLC | 962,415(1) |
| Venrock Healthcare Capital Partners II, L.P. | 5,512,355(2) |
| VHCP Co-Investment Holdings II, LLC | 5,512,355(2) |
| VHCP Management II, LLC | 5,512,355(2) |
| Venrock Healthcare Capital Partners III, L.P. | 5,512,355(2) |
| VHCP Co-Investment Holdings III, LLC | 5,512,355(2) |
| VHCP Management III, LLC | 5,512,355(2) |
| Nimish Shah | 5,512,355(2) |
| Bong Koh | 5,512,355(2) |

- (1) Consists of 783,407 shares held by VA4, 159,761 shares held by VP and 19,247 shares held by VEF4.
- (2) Consists of 2,952,442 shares held by VHCP2, 1,196,936 shares held by VHCP Co-2, 1,239,082 shares held by VHCP3 and 123,895 shares held by VHCP Co-3.
- (3) This percentage is calculated based upon 57,798,637 shares of common stock outstanding as of July 31, 2018, as reported in the issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 1, 2018.

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

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: August 17, 2018

Venrock Associates IV, L.P.

By: Venrock Management IV, LLC
its General Partner

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

Venrock Partners, L.P.

By: Venrock Partners Management, LLC
its General Partner

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

Venrock Entrepreneurs Fund IV, L.P.

By: VEF Management IV, LLC
its General Partner

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

Venrock Management IV, LLC

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

Venrock Partners Management, LLC

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

VEF Management IV, LLC

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

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

Venrock Healthcare Capital Partners III, L.P.

By: VHCP Management III, LLC,
its General Partner

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

VHCP Co-Investment Holdings III, LLC

By: VHCP Management III, LLC,
its Manager

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

VHCP Management III, 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

EXHIBITS

A: Joint Filing Agreement

B: Power of Attorney for Bong Koh (incorporated by reference to Exhibit B to the Schedule 13G filed with the Securities and Exchange Commission on October 10, 2017)

C: Power of Attorney for Nimish Shah (incorporated by reference to Exhibit C to the Schedule 13G filed with the Securities and Exchange Commission on October 10, 2017)

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.

In evidence whereof, the undersigned have caused this Agreement to be executed on their behalf this 17th day of August, 2018.

Venrock Associates IV, L.P.

By: Venrock Management IV, LLC
its General Partner

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

Venrock Partners, L.P.

By: Venrock Partners Management, LLC
its General Partner

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

Venrock Entrepreneurs Fund IV, L.P.

By: VEF Management IV, LLC
its General Partner

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

Venrock Management IV, LLC

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

Venrock Partners Management, LLC

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

VEF Management IV, LLC

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

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

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VHCP Management II, LLC

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Venrock Healthcare Capital Partners III, L.P.

By: VHCP Management III, LLC,
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VHCP Co-Investment Holdings III, LLC

By: VHCP Management III, LLC,
its Manager

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VHCP Management III, LLC

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

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