

**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)**

**December 31, 2015
(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).

1. Name of Reporting Persons	
Venrock Associates IV, L.P.	
2. Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
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 type="checkbox"/>	
11. Percent of Class Represented by Amount in Row (9)	
7.3% ³	
12. Type of Reporting Person (See Instructions)	
PN	

¹ Venrock Associates IV, L.P. (“VA4”), Venrock Partners, L.P. (“VP”), Venrock Entrepreneurs Fund IV, L.P. (“VEF4”), Venrock Management IV, LLC (the general partner of VA4), Venrock Partners Management, LLC (the general partner of VP) and VEF Management IV, LLC (the general partner of VEF4) are members of a group for purposes of this Schedule 13G.

² Consists of 783,407 shares of common stock owned by VA4, 159,761 shares of common stock owned by VP and 19,247 shares of common stock owned by VEF4.

³ This percentage is calculated based upon 13,099,864 shares of the Issuer’s common stock outstanding as of November 9, 2015, as set forth in the Issuer’s quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 12, 2015.

1.	Name of Reporting Persons Venrock Partners, L.P.
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input checked="" type="checkbox"/> ¹ (b) <input type="checkbox"/>
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 type="checkbox"/>
11.	Percent of Class Represented by Amount in Row (9) 7.3% ³
12.	Type of Reporting Person (See Instructions) PN

¹ Venrock Associates IV, L.P. (“VA4”), Venrock Partners, L.P. (“VP”), Venrock Entrepreneurs Fund IV, L.P. (“VEF4”), Venrock Management IV, LLC (the general partner of VA4), Venrock Partners Management, LLC (the general partner of VP) and VEF Management IV, LLC (the general partner of VEF4) are members of a group for purposes of this Schedule 13G.

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³ This percentage is calculated based upon 13,099,864 shares of the Issuer’s common stock outstanding as of November 9, 2015, as set forth in the Issuer’s quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 12, 2015.

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 checked="" type="checkbox"/> (b) <input type="checkbox"/>	
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 type="checkbox"/>	
11. Percent of Class Represented by Amount in Row (9)	
7.3% ³	
12. Type of Reporting Person (See Instructions)	
PN	

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³ This percentage is calculated based upon 13,099,864 shares of the Issuer’s common stock outstanding as of November 9, 2015, as set forth in the Issuer’s quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 12, 2015.

1.	Name of Reporting Persons Venrock Management IV, LLC
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>
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 type="checkbox"/>
11.	Percent of Class Represented by Amount in Row (9) 7.3% ³
12.	Type of Reporting Person (See Instructions) OO

¹ Venrock Associates IV, L.P. ("VA4"), Venrock Partners, L.P. ("VP"), Venrock Entrepreneurs Fund IV, L.P. ("VEF4"), Venrock Management IV, LLC (the general partner of VA4), Venrock Partners Management, LLC (the general partner of VP) and VEF Management IV, LLC (the general partner of VEF4) are members of a group for purposes of this Schedule 13G.

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³ This percentage is calculated based upon 13,099,864 shares of the Issuer's common stock outstanding as of November 9, 2015, as set forth in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 12, 2015.

1.	Name of Reporting Persons Venrock Partners Management, LLC	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
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 type="checkbox"/>	
11.	Percent of Class Represented by Amount in Row (9) 7.3% ³	
12.	Type of Reporting Person (See Instructions) OO	

¹ Venrock Associates IV, L.P. (“VA4”), Venrock Partners, L.P. (“VP”), Venrock Entrepreneurs Fund IV, L.P. (“VEF4”), Venrock Management IV, LLC (the general partner of VA4), Venrock Partners Management, LLC (the general partner of VP) and VEF Management IV, LLC (the general partner of VEF4) are members of a group for purposes of this Schedule 13G.

² Consists of 783,407 shares of common stock owned by VA4, 159,761 shares of common stock owned by VP and 19,247 shares of common stock owned by VEF4.

³ This percentage is calculated based upon 13,099,864 shares of the Issuer’s common stock outstanding as of November 9, 2015, as set forth in the Issuer’s quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 12, 2015.

1.	Name of Reporting Persons VEF Management IV, LLC	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
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 type="checkbox"/>	
11.	Percent of Class Represented by Amount in Row (9) 7.3% ³	
12.	Type of Reporting Person (See Instructions) OO	

¹ Venrock Associates IV, L.P. (“VA4”), Venrock Partners, L.P. (“VP”), Venrock Entrepreneurs Fund IV, L.P. (“VEF4”), Venrock Management IV, LLC (the general partner of VA4), Venrock Partners Management, LLC (the general partner of VP) and VEF Management IV, LLC (the general partner of VEF4) are members of a group for purposes of this Schedule 13G.

² Consists of 783,407 shares of common stock owned by VA4, 159,761 shares of common stock owned by VP and 19,247 shares of common stock owned by VEF4.

³ This percentage is calculated based upon 13,099,864 shares of the Issuer’s common stock outstanding as of November 9, 2015, as set forth in the Issuer’s quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 12, 2015.

Introductory Note: This Statement on Schedule 13G is filed on behalf of 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 (“Venrock Management”), Venrock Partners Management, LLC, a limited liability company organized under the laws of the State of Delaware (“VP Management”), and VEF Management IV, LLC, a limited liability company organized under the laws of the State of Delaware (“VEF Management” and collectively with VA4, VP, VEF4, Venrock Management and VP Management, the “Venrock Entities”) 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 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
- (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:
470 Atlantic Avenue
4th Floor
Boston, MA 02210

- (c) Citizenship

Each of VA4, VP and VEF4 are limited partnerships organized in the State of Delaware. Each of Venrock Management, VP Management and VEF Management are limited liability companies organized in the State of Delaware.

(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

Item 4. Ownership

(a) Amount Beneficially Owned as of December 31, 2015:

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)

(b) Percent of Class as of December 31, 2015:

Venrock Associates IV, L.P.	7.3% (2)
Venrock Partners, L.P.	7.3% (2)
Venrock Entrepreneurs Fund IV, L.P.	7.3% (2)
Venrock Management IV, LLC	7.3% (2)
Venrock Partners Management, LLC	7.3% (2)
VEF Management IV, LLC	7.3% (2)

(c) Number of shares as to which the person has, as of December 31, 2015:

(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

(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)

(V) 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

(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)

- (1) These shares are owned directly as follows: 783,407 shares are owned by VA4, 159,761 shares are owned by VP and 19,247 shares are owned by VEF4.
- (2) This percentage is calculated based upon 13,099,864 shares of the Issuer's common stock outstanding as of November 9, 2015, as set forth in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 12, 2015.

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

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

Not Applicable

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 16, 2016

Venrock Associates IV, L.P.

By: Venrock Management IV, LLC
Its: General Partner

By: /s/ David Stepp
Authorized Signatory

Venrock Partners, L.P.

By: Venrock Partners Management, LLC
Its: General Partner

By: /s/ David Stepp
Authorized Signatory

Venrock Entrepreneurs Fund IV, L.P.

By: VEF Management IV, LLC
Its: General Partner

By: /s/ David Stepp
Authorized Signatory

Venrock Management IV, LLC

By: /s/ David Stepp
Authorized Signatory

Venrock Partners Management, LLC

By: /s/ David Stepp
Authorized Signatory

VEF Management IV, LLC

By: /s/ David Stepp
Authorized Signatory

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.

In evidence whereof, the undersigned have caused this Agreement to be executed on their behalf this 16th day of February, 2016.

Venrock Associates IV, L.P.

By: Venrock Management IV, LLC
Its: General Partner

By: /s/ David Stepp
Authorized Signatory

Venrock Partners, L.P.

By: Venrock Partners Management, LLC
Its: General Partner

By: /s/ David Stepp
Authorized Signatory

Venrock Entrepreneurs Fund IV, L.P.

By: VEF Management IV, LLC
Its: General Partner

By: /s/ David Stepp
Authorized Signatory

Venrock Management IV, LLC

By: /s/ David Stepp
Authorized Signatory

Venrock Partners Management, LLC

By: /s/ David Stepp
Authorized Signatory

VEF Management IV, LLC

By: /s/ David Stepp
Authorized Signatory

EXHIBITS

A: Joint Filing Agreement