

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

SCHEDULE 13G

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

AXSOME THERAPEUTICS, INC.

(Name of Issuer)

COMMON STOCK

(Title of Class of Securities)

05464T104

(CUSIP Number)

January 18, 2019

(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 Healthcare Capital Partners II, L.P.
-
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
1,640,000(2)

7. Sole Dispositive Power
0

8. Shared Dispositive Power
1,640,000(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person
1,640,000(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)
5.0%(3)
-

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

- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
- (2) Consists of 407,022 shares owned by Venrock Healthcare Capital Partners II, L.P., 164,934 shares owned by VHCP Co-Investment Holdings II, LLC, 971,020 shares owned by Venrock Healthcare Capital Partners III, L.P. and 97,024 shares owned by VHCP Co-Investment Holdings III, LLC.
- (3) This percentage is calculated based upon 32,694,234 shares of the Issuer's common stock outstanding as of January 8, 2019 consisting of (i) 29,813,168 shares of common stock outstanding as of November 2, 2018 as reported in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission (the "Commission") on November 9, 2018, plus (ii) 2,881,066 shares of common stock issued and sold on January 7, 2019 as reported in the Issuer's current report on Form 8-K filed with the Commission on January 8, 2019.

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
 1,640,000(2)

7. Sole Dispositive Power
 0

8. Shared Dispositive Power
 1,640,000(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person
 1,640,000(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)
 5.0%(3)

12. Type of Reporting Person (See Instructions)
 OO

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

(2) Consists of 407,022 shares owned by Venrock Healthcare Capital Partners II, L.P., 164,934 shares owned by VHCP Co-Investment Holdings II, LLC, 971,020 shares owned by Venrock Healthcare Capital Partners III, L.P. and 97,024 shares owned by VHCP Co-Investment Holdings III, LLC.

(3) This percentage is calculated based upon 32,694,234 shares of the Issuer's common stock outstanding as of January 8, 2019 consisting of (i) 29,813,168 shares of common stock outstanding as of November 2, 2018 as reported in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission (the "Commission") on November 9, 2018, plus (ii) 2,881,066 shares of common stock issued and sold on January 7, 2019 as reported in the Issuer's current report on Form 8-K filed with the Commission on January 8, 2019.

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) (1)

(b) 0

3. SEC Use Only
-

4. Citizenship or Place of Organization
Delaware
-

5. Sole Voting Power
0

Number of
Shares
Beneficially

6. Shared Voting Power
1,640,000(2)

Owned by
Each
Reporting
Person With:

7. Sole Dispositive Power
0

8. Shared Dispositive Power
1,640,000(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person
1,640,000(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)
5.0%(3)
-

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

- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
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- (3) This percentage is calculated based upon 32,694,234 shares of the Issuer's common stock outstanding as of January 8, 2019 consisting of (i) 29,813,168 shares of common stock outstanding as of November 2, 2018 as reported in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission (the "Commission") on November 9, 2018, plus (ii) 2,881,066 shares of common stock issued and sold on January 7, 2019 as reported in the Issuer's current report on Form 8-K filed with the Commission on January 8, 2019.

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) (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
1,640,000(2)

7. Sole Dispositive Power
0

8. Shared Dispositive Power
1,640,000(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person
1,640,000(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)
5.0%(3)
-

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

- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
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- (3) This percentage is calculated based upon 32,694,234 shares of the Issuer's common stock outstanding as of January 8, 2019 consisting of (i) 29,813,168 shares of common stock outstanding as of November 2, 2018 as reported in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission (the "Commission") on November 9, 2018, plus (ii) 2,881,066 shares of common stock issued and sold on January 7, 2019 as reported in the Issuer's current report on Form 8-K filed with the Commission on January 8, 2019.

1. Name of Reporting Persons
VHCP Management II, LLC

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

(a) (1)

(b) 0

3. SEC Use Only

4. Citizenship or Place of Organization
Delaware

5. Sole Voting Power
0

Number of
Shares
Beneficially

6. Shared Voting Power
1,640,000(2)

Owned by
Each
Reporting
Person With:

7. Sole Dispositive Power
0

8. Shared Dispositive Power
1,640,000(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person
1,640,000(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)
5.0%(3)

12. Type of Reporting Person (See Instructions)
OO

- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
- (2) Consists of 407,022 shares owned by Venrock Healthcare Capital Partners II, L.P., 164,934 shares owned by VHCP Co-Investment Holdings II, LLC, 971,020 shares owned by Venrock Healthcare Capital Partners III, L.P. and 97,024 shares owned by VHCP Co-Investment Holdings III, LLC.
- (3) This percentage is calculated based upon 32,694,234 shares of the Issuer's common stock outstanding as of January 8, 2019 consisting of (i) 29,813,168 shares of common stock outstanding as of November 2, 2018 as reported in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission (the "Commission") on November 9, 2018, plus (ii) 2,881,066 shares of common stock issued and sold on January 7, 2019 as reported in the Issuer's current report on Form 8-K filed with the Commission on January 8, 2019.

1. Name of Reporting Persons
VHCP Management III, 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
1,640,000(2)

7. Sole Dispositive Power
0

8. Shared Dispositive Power
1,640,000(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person
1,640,000(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)
5.0%(3)

12. Type of Reporting Person (See Instructions)
OO

- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
- (2) Consists of 407,022 shares owned by Venrock Healthcare Capital Partners II, L.P., 164,934 shares owned by VHCP Co-Investment Holdings II, LLC, 971,020 shares owned by Venrock Healthcare Capital Partners III, L.P. and 97,024 shares owned by VHCP Co-Investment Holdings III, LLC.
- (3) This percentage is calculated based upon 32,694,234 shares of the Issuer's common stock outstanding as of January 8, 2019 consisting of (i) 29,813,168 shares of common stock outstanding as of November 2, 2018 as reported in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission (the "Commission") on November 9, 2018, plus (ii) 2,881,066 shares of common stock issued and sold on January 7, 2019 as reported in the Issuer's current report on Form 8-K filed with the Commission on January 8, 2019.

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
1,640,000(2)

7. Sole Dispositive Power
0

8. Shared Dispositive Power
1,640,000(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person
1,640,000(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)
5.0%(3)

12. Type of Reporting Person (See Instructions)
IN

- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
- (2) Consists of 407,022 shares owned by Venrock Healthcare Capital Partners II, L.P., 164,934 shares owned by VHCP Co-Investment Holdings II, LLC, 971,020 shares owned by Venrock Healthcare Capital Partners III, L.P. and 97,024 shares owned by VHCP Co-Investment Holdings III, LLC.
- (3) This percentage is calculated based upon 32,694,234 shares of the Issuer's common stock outstanding as of January 8, 2019 consisting of (i) 29,813,168 shares of common stock outstanding as of November 2, 2018 as reported in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission (the "Commission") on November 9, 2018, plus (ii) 2,881,066 shares of common stock issued and sold on January 7, 2019 as reported in the Issuer's current report on Form 8-K filed with the Commission on January 8, 2019.

1. Name of Reporting Persons
Koh, Bong

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
1,640,000(2)

7. Sole Dispositive Power
0

8. Shared Dispositive Power
1,640,000(2)

9. Aggregate Amount Beneficially Owned by Each Reporting Person
1,640,000(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)
5.0%(3)

12. Type of Reporting Person (See Instructions)
IN

- (1) Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, VHCP Management II, LLC, VHCP Management III, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
- (2) Consists of 407,022 shares owned by Venrock Healthcare Capital Partners II, L.P., 164,934 shares owned by VHCP Co-Investment Holdings II, LLC, 971,020 shares owned by Venrock Healthcare Capital Partners III, L.P. and 97,024 shares owned by VHCP Co-Investment Holdings III, LLC.
- (3) This percentage is calculated based upon 32,694,234 shares of the Issuer's common stock outstanding as of January 8, 2019 consisting of (i) 29,813,168 shares of common stock outstanding as of November 2, 2018 as reported in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission (the "Commission") on November 9, 2018, plus (ii) 2,881,066 shares of common stock issued and sold on January 7, 2019 as reported in the Issuer's current report on Form 8-K filed with the Commission on January 8, 2019.

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 LP”), VHCP Co-Investment Holdings II, LLC, a limited liability company organized under the laws of the State of Delaware (“VHCP Co-Investment II”), Venrock Healthcare Capital Partners III, L.P., a limited partnership organized under the laws of the State of Delaware (“VHCP III LP”), VHCP Co-Investment Holdings III, LLC, a limited liability company organized under the laws of the State of Delaware (“VHCP Co-Investment III”), VHCP Management II, LLC, a limited liability company organized under the laws of the State of Delaware (“VHCP Management II”), VHCP Management III, LLC, a limited liability company organized under the laws of the State of Delaware (“VHCP Management III” and collectively with VHCP II LP, VHCP Co-Investment II, VHCP III LP, VHCP Co-Investment III and VHCP Management II, the “Venrock Entities”), Nimish Shah (“Shah”) and Bong Koh (“Koh”) in respect of Common Stock of Axsome Therapeutics, Inc.

Item 1.

- (a) Name of Issuer
Axsome Therapeutics, Inc.
-
- (b) Address of Issuer’s Principal Executive Offices
25 Broadway, 9th Floor
New York, NY 10004
-

Item 2.

- (a) Name of Person Filing
Venrock Healthcare Capital Partners II, L.P.
VHCP Co-Investment Holdings II, LLC
Venrock Healthcare Capital Partners III, L.P.
VHCP Co-Investment Holdings III, LLC
VHCP Management II, LLC
VHCP Management III, LLC
Nimish Shah
Bong Koh
-
- (b) Address of Principal Business Office or, if none, Residence
- | | | |
|---|---|---|
| New York Office: | Palo Alto Office: | Boston Office: |
| 7 Bryant Park
23rd Floor
New York, NY 10018 | 3340 Hillview Avenue
Palo Alto, CA 94304 | 34 Farnsworth Street
3rd Floor
Boston, MA 02210 |
-
- (c) Citizenship
All of the Venrock Entities were organized in Delaware. The individuals are both United States citizens.
-
- (d) Title of Class of Securities
Common Stock
-
- (e) CUSIP Number
05464T104
-

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 January 28, 2019:

Venrock Healthcare Capital Partners II, L.P.	1,640,000(1)
VHCP Co-Investment Holdings II, LLC	1,640,000(1)
Venrock Healthcare Capital Partners III, L.P.	1,640,000(1)
VHCP Co-Investment Holdings III, LLC	1,640,000(1)
VHCP Management II, LLC	1,640,000(1)
VHCP Management III, LLC	1,640,000(1)
Nimish Shah	1,640,000(1)
Bong Koh	1,640,000(1)

(b) Percent of class as of January 28, 2019:

Venrock Healthcare Capital Partners II, L.P.	5.0%
VHCP Co-Investment Holdings II, LLC	5.0%
Venrock Healthcare Capital Partners III, L.P.	5.0%
VHCP Co-Investment Holdings III, LLC	5.0%
VHCP Management II, LLC	5.0%
VHCP Management III, LLC	5.0%
Nimish Shah	5.0%
Bong Koh	5.0%

(c) Number of shares as to which the person has, as of January 28, 2019:

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

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

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

Venrock Healthcare Capital Partners II, L.P.	1,640,000(1)
VHCP Co-Investment Holdings II, LLC	1,640,000(1)
Venrock Healthcare Capital Partners III, L.P.	1,640,000(1)
VHCP Co-Investment Holdings III, LLC	1,640,000(1)
VHCP Management II, LLC	1,640,000(1)
VHCP Management III, LLC	1,640,000(1)
Nimish Shah	1,640,000(1)
Bong Koh	1,640,000(1)

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

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

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

Venrock Healthcare Capital Partners II, L.P.	1,640,000(1)
VHCP Co-Investment Holdings II, LLC	1,640,000(1)
Venrock Healthcare Capital Partners III, L.P.	1,640,000(1)
VHCP Co-Investment Holdings III, LLC	1,640,000(1)
VHCP Management II, LLC	1,640,000(1)
VHCP Management III, LLC	1,640,000(1)
Nimish Shah	1,640,000(1)
Bong Koh	1,640,000(1)

(1) These shares are owned directly as follows: 407,022 shares are owned by Venrock Healthcare Capital Partners II, L.P., 164,934 shares are owned by VHCP Co-Investment Holdings II, LLC, 971,020 shares are owned by Venrock Healthcare Capital Partners III, L.P. and 97,024 shares are owned by VHCP Co-Investment Holdings III, LLC. VHCP Management II, LLC is the general partner of Venrock Healthcare Capital Partners II, L.P. and the manager of VHCP Co-Investment Holdings II, LLC. VHCP Management III, LLC is the general partner of Venrock Healthcare Capital Partners III, L.P. and the manager of VHCP Co-Investment Holdings III, LLC. Messrs. Shah and Koh are the managing members of VHCP Management II, LLC and VHCP Management III, LLC.

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

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

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

Not Applicable

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: January 28, 2019

Venrock Healthcare Capital Partners II, L.P.

By: VHCP Management II, LLC
Its: General Partner

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

VHCP Co-Investment Holdings II, LLC

By: VHCP Management II, LLC
Its: Manager

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

VHCP Management II, LLC

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

Nimish Shah

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

Venrock Healthcare Capital Partners III, L.P.

By: VHCP Management III, LLC
Its: General Partner

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

VHCP Co-Investment Holdings III, LLC

By: VHCP Management III, LLC
Its: Manager

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

VHCP Management III, LLC

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

Bong Koh

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

EXHIBITS

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

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 Axsome 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 28th day of January, 2019.

Venrock Healthcare Capital Partners II, L.P.

By: VHCP Management II, LLC
Its: General Partner

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

VHCP Co-Investment Holdings II, LLC

By: VHCP Management II, LLC
Its: Manager

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

VHCP Management II, LLC

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

Nimish Shah

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

Venrock Healthcare Capital Partners III, L.P.

By: VHCP Management III, LLC
Its: General Partner

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

VHCP Co-Investment Holdings III, LLC

By: VHCP Management III, LLC
Its: Manager

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

VHCP Management III, LLC

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

Bong Koh

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

EXHIBIT B

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 28th day of January, 2019.

/s/ Nimish Shah

EXHIBIT C

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 28th day of January, 2019.

/s/ Bong Koh
