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Nathalie Auber

Sofinnova Ventures, Inc.

3000 Sand Hill Road, Bldg 4, Suite 250

Menlo Park, CA 94025

(650) 681-8420

(Name, Address and Telephone Number of Person

Authorized to Receive Notices and Communications)

COPY TO:

Linda Daley, Esq.

c/o Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP

1200 Seaport Blvd., Redwood City, CA 94063

(650) 463-5243

December 16, 2016

(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box "

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 240.13d-7 for other parties to whom copies are to be sent.

*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

disclosures provided in a prior cover page.

This information required on 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).

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NAME OF REPORTING PERSON
1I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)
  Sofinnova Venture Partners VIII, L.P. ("SVP VIII")
 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP
2
 (a)
      o
            (b)
3 SEC USE ONLY
 SOURCE OF FUNDS
4
 WC
_5\mathrm{CHECK} BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)
 CITIZENSHIP OR PLACE OF ORGANIZATION
6
 Delaware
NUMBER OF
                 SOLE VOTING POWER
                 904,986 shares, except that Sofinnova Management VIII, L.L.C. ("SM VIII"), the general partner
               7 of SVP VIII, may be deemed to have sole voting power, and Dr. Michael F. Powell ("Powell"), Dr.
SHARES
                 James I. Healy ("Healy"), and Dr. Anand Mehra ("Mehra"), the managing members of SM VIII, may
                 be deemed to have shared power to vote these shares.
BENEFICIALLY
                 SHARED VOTING POWER
OWNED BY
                 See response to row 7.
                 SOLE DISPOSITIVE POWER
EACH
                 904,986 shares, except that SM VIII, the general partner of SVP VIII, may be deemed to have
REPORTING
                 sole dispositive power and Powell, Healy, and Mehra, the managing members of SM VIII, may
                 be deemed to have shared power to dispose of these shares.
PERSON
               SHARED DISPOSITIVE POWER
                 See response to row 9.
WITH
  AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
11
  904,986
  CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 11 EXCLUDES CERTAIN SHARES
12
  PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11
13
  2.9%
  TYPE OF REPORTING PERSON
14
  PN
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NAME OF REPORTING PERSON
1 I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)
  Sofinnova Management VIII, L.L.C. ("SM VIII")
 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP
2
 (a)
            (b)
3 SEC USE ONLY
 SOURCE OF FUNDS
 AF
_5\mathrm{CHECK} BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)
 CITIZENSHIP OR PLACE OF ORGANIZATION
6
 Delaware
NUMBER OF
                  SOLE VOTING POWER
                  904,986 shares, all of which are owned directly by SVP VIII. SM VIII, the general partner of
                  SVP VIII, may be deemed to have sole voting power, and Powell, Healy, and Mehra, the
SHARES
                  managing members of SM VIII, may be deemed to have shared power to vote these shares.
BENEFICIALLY <sub>Q</sub>
                  SHARED VOTING POWER
                  See response to row 7.
                  SOLE DISPOSITIVE POWER
OWNED BY
EACH
                  904,986 shares, all of which are owned directly by SVP VIII. SM VIII, the general partner of
               9 SVP VIII, may be deemed to have sole dispositive power, and Powell, Healy, and Mehra, the
                  managing members of SM VIII, may be deemed to have shared dispositive power over these
REPORTING
                  shares.
PERSON
               SHARED DISPOSITIVE POWER
                  See response to row 9.
WITH
  AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
11
  904,986
  CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 11 EXCLUDES CERTAIN SHARES
12
  PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11
13
  2.9%
  TYPE OF REPORTING PERSON
14
  00
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NAME OF REPORTING PERSON
1 I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)
  Dr. Michael F. Powell ("Powell")
 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP
2
 (a)
            (b)
3 SEC USE ONLY
 SOURCE OF FUNDS
 AF
5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or
 CITIZENSHIP OR PLACE OF ORGANIZATION
6
 U.S. Citizen
               7 SOLE VOTING POWER
NUMBER OF
                 -0-
SHARES
                 SHARED VOTING POWER
                 904,986 shares, all of which are owned directly by SVP VIII. SM VIII, the general partner of
BENEFICIALLY
                 SVP VIII, may be deemed to have sole voting power, and Powell, a managing member of SM
                 VIII, may be deemed to have shared voting power to vote these shares.
                 SOLE DISPOSITIVE POWER
OWNED BY
                 -0-
EACH
REPORTING
                 SHARED DISPOSITIVE POWER
                 904,986 shares, all of which are owned directly by SVP VIII. SM VIII, the general partner of
                 SVP VIII, may be deemed to have sole dispositive power, and Powell, a managing member of
PERSON
                 SM VIII, may be deemed to have shared power to dispose of these shares.
WITH
  AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
11
  904,986
  CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 11 EXCLUDES CERTAIN SHARES
12
  PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11
13
  2.9%
  TYPE OF REPORTING PERSON
14
  IN
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NAME OF REPORTING PERSON
1 I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)
  Dr. James I. Healy ("Healy")
 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP
2
 (a)
            (b)
3 SEC USE ONLY
 SOURCE OF FUNDS
 AF
5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or
 CITIZENSHIP OR PLACE OF ORGANIZATION
6
 U.S. Citizen
               7 SOLE VOTING POWER
NUMBER OF
                 -0-
SHARES
                 SHARED VOTING POWER
                 904,986 shares, all of which are owned directly by SVP VIII. SM VIII, the general partner of
BENEFICIALLY
                 SVP VIII, may be deemed to have sole voting power, and Healy, a managing member of SM
                 VIII, may be deemed to have shared voting power to vote these shares.
                 SOLE DISPOSITIVE POWER
OWNED BY
                 -0-
EACH
REPORTING
                 SHARED DISPOSITIVE POWER
                 904,986 shares, all of which are owned directly by SVP VIII. SM VIII, the general partner of
                 SVP VIII, may be deemed to have sole dispositive power, and Healy, a managing member of
PERSON
                 SM VIII, may be deemed to have shared power to dispose of these shares.
WITH
  AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
11
  904,986
  CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 11 EXCLUDES CERTAIN SHARES
12
  PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11
13
  2.9%
  TYPE OF REPORTING PERSON
14
  IN
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NAME OF REPORTING PERSON
1 I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)
  Dr. Anand Mehra ("Mehra")
 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP
2
 (a)
            (b)
                  X
3 SEC USE ONLY
 SOURCE OF FUNDS
 AF
5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or
 CITIZENSHIP OR PLACE OF ORGANIZATION
6
 U.S. Citizen
               7 SOLE VOTING POWER
NUMBER OF
                  -0-
SHARES
                  SHARED VOTING POWER
                  904,986 shares, all of which are owned directly by SVP VIII. SM VIII, the general partner of
BENEFICIALLY
                  SVP VIII, may be deemed to have sole voting power, and Mehra, a managing member of SM
                  VIII and director of the Issuer, may be deemed to have shared voting power to vote these shares.
OWNED BY
                  SOLE DISPOSITIVE POWER
EACH
               9 23,252 shares that are subject to a stock option exercisable by Mehra within 60 days of the date
                  of this filing.
REPORTING
                  SHARED DISPOSITIVE POWER
                  904,986 shares, all of which are owned directly by SVP VIII. SM VIII, the general partner of
PERSON
               10SVP VIII, may be deemed to have sole dispositive power, and Mehra, a managing member of
                  SM VIII and director of the Issuer, may be deemed to have shared power to dispose of these
WITH
                  shares.
  AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
11
  928,238
  CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 11 EXCLUDES CERTAIN SHARES
12
  PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11
13
  3.0%
  TYPE OF REPORTING PERSON
14
  IN
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Statement on Schedule 13D

This Amendment No. 2 ("Amendment No. 2") amends and restates the Statement on Schedule 13D initially filed on February 9, 2015 and amended on October 21, 2015 (as amended, the "Original Schedule 13D") on behalf of Sofinnova Venture Partners VIII, L.P., a Delaware limited partnership ("SVP VIII"), Sofinnova Management VIII, L.L.C., a Delaware limited liability company ("SM VIII"), Dr. Michael F. Powell ("Powell"), Dr. James I. Healy ("Healy"), and Dr. Anand Mehra ("Mehra" and collectively with SVP VIII, SM VIII, Powell, and Healy, the "Reporting Persons"), relating to the beneficial ownership of Common Stock, \$0.001 par value per share ("Common Stock"), of Spark Therapeutics, Inc., a Delaware corporation ("Issuer"). This Amendment No. 2 is being filed to reflect the disposition of Common Stock by SVP VIII.

ITEM 1. SECURITY AND ISSUER.

- (a) The class of equity securities to which this statement relates is the Common Stock of the Issuer.
- (b) The Issuer's principal executive offices are located at 3737 Market Street Suite 1300, Philadelphia, PA 19014.

ITEM 2. IDENTITY AND BACKGROUND.

- (a) The persons and entities filing this Schedule 13D are SVP VIII, SM VIII, Powell, Healy, and Mehra. SM VIII, the general partner of SVP VIII, may be deemed to have sole power to vote and sole power to dispose of shares of the Issuer directly owned by SVP VIII. Dr. Srinivas Akkaraju, a reporting person on the Original Schedule 13D, is no longer a managing member of SM VIII, and accordingly, is no longer a reporting person on this Amendment No. 2.
- (b) The address of the principal place of business for each of the Reporting Persons is c/o Sofinnova Ventures, 3000 Sand Hill Road, Bldg 4, Suite 250, Menlo Park, California 94025.
- (c) The principal occupation of each of the Reporting Persons is the venture capital investment business. The principal business of SVP VIII is to make investments in private and public companies, and the principal business of SM VIII is to serve as the general partner of SVP VIII. Powell, Healy and Mehra are the managing members of SM VIII. Mehra is a director of the Issuer.

- (d) During the last five years, none of the Reporting Persons has been convicted in any criminal proceeding (excluding traffic violations or similar misdemeanors).
- (e) During the last five years, none of the Reporting Persons has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.
- (f) SVP VIII is a Delaware limited partnership. SM VIII is a Delaware limited liability company. Powell, Healy, and Mehra are U.S. citizens.

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ITEM 3. SOURCE AND AMOUNT OF FUNDS OR OTHER CONSIDERATION.

On May 23, 2014, SVP VIII entered into a Series B investment agreement pursuant to which SVP VIII acquired from the Issuer an aggregate 1,863,354 shares of Series B preferred shares for a purchase price of \$8.05 per share, or \$15,000,000 in the aggregate. The Series B preferred shares accrued stock dividends payable in additional Series B preferred shares at a rate of 8% per annum from November 23, 2014. The aggregate amount of stock dividends that accrued through the closing of the Issuer's initial public offering of Common Stock ("Offering") was 30,222 shares of Common Stock.

On August 11, 2014, Mehra was granted a stock option from the Issuer to purchase 37,203 shares of Common Stock at an exercise price of \$3.45 per share. Such option will vest over four years, with 25% of the shares underlying the option vesting on May 24, 2015, and the remainder vesting quarterly thereafter. Such option will expire on August 11, 2024.

In connection with the Offering, the Series B preferred shares, including Series B preferred shares issued as accrued stock dividends, automatically converted on a one-for-one basis into 1,893,576 shares of Common Stock.

In connection with the Offering, SVP VIII purchased 225,000 shares of Common Stock at \$23.00 per share, or \$5,175,000 in the aggregate. Such purchase occurred pursuant to and on the terms set forth in the Issuer's Prospectus filed pursuant to Rule 424(b)(4) on January 30, 2015 with the Securities and Exchange Commission (the "Prospectus").

The Issuer effected a 5:1 reverse stock split on January 16, 2015. Accordingly, unless otherwise noted above, all disclosed numbers and nominal value of shares are adjusted for such stock split.

On October 7, 2015, SVP VIII disposed of 251,912 shares of Common Stock in open market sales for an average price of \$46.11 per share or \$11,616,795.92 in the aggregate.

On October 8, 2015, SVP VIII disposed of 277,632 shares of Common Stock in open market sales for an average price of \$44.99 per share or \$12,491,107.89 in the aggregate.

On November 9, 2015, SVP VIII disposed of 25,955 shares of Common Stock in open market sales for an average price of \$60.07 per share or \$1,559,116.85 in the aggregate.

On November 10, 2015, SVP VIII disposed of 5,932 shares of Common Stock in open market sales for an average price of \$60.01 per share or \$355,979.32 in the aggregate.

On November 11, 2015, SVP VIII disposed of 97,644 shares of Common Stock in open market sales for an average price of \$60.13 per share or \$5,871,333.72 in the aggregate.

On November 12, 2015, SVP VIII disposed of 1,074 shares of Common Stock in open market sales for an average price of \$60.00 per share or \$64,440.00 in the aggregate.

On November 25, 2015, SVP VIII disposed of 17,611 shares of Common Stock in open market sales for an average price of \$60.01 per share or \$94,218,850.00 in the aggregate.

On November 27, 2015, SVP VIII disposed of 5,350 shares of Common Stock in open market sales for an average price of \$60.02 per share or \$321,107.00 in the aggregate.

On May 31, 2016, SVP VIII disposed of 500 shares of Common Stock in open market sales for \$60.00 per share or \$30,000.00 in the aggregate.

On August 1, 2016, SVP VIII disposed of 22,665 shares of Common Stock in open market sales for an average price of \$60.03 per share or \$1,360,579.95 in the aggregate.

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On August 3, 2016, SVP VIII disposed of 4,612 shares of Common Stock in open market sales for an average price of \$60.00 per share or \$276,720.00 in the aggregate.

On August 4, 2016, SVP VIII disposed of 452 shares of Common Stock in open market sales for \$60.00 per share or \$27,120.00 in the aggregate.

On August 8, 2016, SVP VIII disposed of 100 shares of Common Stock in open market sales for an average price of \$60.47 per share or \$6,047.00 in the aggregate.

On August 10, 2016, SVP VIII disposed of 6,900 shares of Common Stock in open market sales for an average price of \$60.02 per share or \$414,138 in the aggregate.

On August 11, 2016, SVP VIII disposed of 23,063 shares of Common Stock in open market sales for an average price of \$60.1721 per share or \$1,387,749.14 in the aggregate.

On December 9, 2016, SVP VIII disposed of 100,251 shares of Common Stock in open market sales for an average price of \$55.5759 per share or \$5,571,539.55 in the aggregate.

On December 13, 2016, SVP VIII disposed of 22,281 shares of Common Stock in open market sales for an average price of \$53.32 per share or \$1,188,022.92 in the aggregate.

On December 15, 2016, SVP VIII disposed of 69,928 shares of Common Stock in open market sales for an average price of \$53.07 per share or \$3,711,078.96 in the aggregate.

On December 16, 2016, SVP VIII disposed of 279,728 shares of Common Stock in open market sales for an average price of \$53.557 per share or \$14,981,392.50 in the aggregate.

The source of the funds for all purchases and acquisitions by the Reporting Persons was from working capital.

No part of the purchase price was borrowed by any Reporting Person for the purpose of acquiring any securities discussed in this Item 3.

ITEM 4. PURPOSE OF TRANSACTION.

The Reporting Persons hold their securities of the Issuer for investment purposes. Depending on the factors discussed herein, the Reporting Persons may, from time to time, acquire additional Common Stock and/or retain and/or sell all or a portion of the Common Stock held by the Reporting Persons in the open market or in privately negotiated transactions, and/or may distribute the Common Stock held by the Reporting Persons to their respective members or limited partners. Any actions the Reporting Persons might undertake will be dependent upon the Reporting Persons' review of numerous factors, including, among other things, the price levels of the Common Stock, general market and economic conditions, ongoing evaluation of the Issuer's business, financial condition, operations and prospects; the relative attractiveness of alternative business and investment opportunities, and other future developments.

SVP VIII entered into a sales plan that complies with Rule 10b5-1 under the Securities Exchange Act of 1934, as amended (the "Exchange Act") with J.P. Morgan Securities LLC on October 8, 2015 (the "Rule 10b5-1 Plan"), incorporated herein as Exhibit F. Pursuant to the Rule 10b5-1 Plan, up to a certain number of shares of Common Stock may be sold by SVP VIII over a set period of time, provided that the terms and conditions of the Rule 10b5-1 Plan are met.

Except as set forth above, the Reporting Persons have no other plans or intentions which would result in or relate to any of the transactions described in subparagraphs (a) through (j) of Item 4 of Schedule 13D.

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ITEM 5. INTEREST IN SECURITIES OF THE ISSUER.

- (a,b) Regarding aggregate beneficial ownership, see Row 11 of the cover page of each Reporting Person. Regarding percentage beneficial ownership, see Row 13 of the cover page of each Reporting Person. Regarding sole power to vote shares, see Row 7 of the cover page of each Reporting Person. Regarding shared power to vote shares, see Row 8 of the cover page of each Reporting Person. Regarding sole power to dispose of shares, see Row 9 of the cover page of each Reporting Person. Regarding shared power to dispose of shares, see Row 10 of the cover page of each Reporting Person. The percentage listed in Row 13 for each Reporting Person was calculated based upon 30,773,048 shares of Common Stock outstanding as of November 1, 2016.
- (c) Except as set forth in Item 3 above, the Reporting Persons have not effected any transaction in the Common Stock of the Issuer during the past 60 days.
- (d) Under certain circumstances set forth in the limited partnership agreement of SVP VIII, the general partner and limited partners of SVP VIII may be deemed to have the right to receive dividends from, or the proceeds from, the sale of shares of the Issuer owned by such entity of which they are a partner.
- (e) The Reporting Persons ceased to be beneficial owners of more than five percent of the Issuer's Common Stock on August 3, 2016.

ITEM CONTRACTS, ARRANGEMENTS, UNDERSTANDINGS OR RELATIONSHIPS WITH RESPECT TO SECURITIES OF THE ISSUER.

Pursuant to a Lock-Up Agreement entered into with J.P. Morgan Securities LLC and Credit Suisse Securities (USA) LLC in connection with the Offering, the Reporting Persons are subject to a Lock-Up Period (as defined in the Lock-Up Agreement) continuing and including the date 180 days after the date of the Prospectus, during which the Reporting Persons have agreed, subject to limited exceptions, not to offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock or enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of Common Stock. The Lock-Up Agreement is more fully described in the Prospectus, and the form of Lock-Up Agreement is incorporated herein by reference to Exhibit D to the Underwriting Agreement filed on January 20, 2015 as Exhibit 1.1 to Amendment No. 1 to the Issuer's Registration Statement on Form S-1 (File No. 333-201318).

The Reporting Persons are party to an Investors' Rights Agreement among the Issuer, the Reporting Persons and other shareholders. Subject to the terms of the Investors' Rights Agreement, holders of Common Stock having registration rights can demand that the Issuer file a registration statement or request that their shares be covered by a registration statement that the Issuer is otherwise filing. The Investors' Rights Agreement dated as of May 23, 2014 described in Item 6, was filed on December 30, 2014 as Exhibit 4.2 to the Issuer's Registration Statement on Form S-1 (File No. 333-201318), and is incorporated herein by reference.

On August 11, 2014, Mehra was granted a stock option from the Issuer to purchase 37,203 shares of Common Stock at an exercise price of \$3.45 per share. Such option will vest over four years, with 25% of the shares underlying the option vesting on May 24, 2015, and the remainder vesting quarterly thereafter. Such option will expire on August 11, 2024.

Mehra, in his capacity as a director of the Issuer, along with the other directors of the Issuer, entered into an Indemnification Agreement with the Issuer, as more fully described in the Prospectus and incorporated herein by reference to Exhibit 10.26 to Amendment No. 1 to the Issuer's Registration Statement on Form S-1 (File No. 333-201318).

SVP VIII entered into a sales plan that complies with Rule 10b5-1 under the Exchange Act with J.P. Morgan Securities LLC on October 8, 2015 (the "Rule 10b5-1 Plan"), incorporated herein as Exhibit F. Pursuant to the Rule 10b5-1 Plan, up to a certain number of shares of Common Stock may be sold by SVP VIII over a set period of time, provided that the terms and conditions of the Rule 10b5-1 Plan are met.

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ITEM 7. MATERIAL TO BE FILED AS EXHIBITS.

EXHIBIT A	greement of Joint Filing.		
EXHIBIT B	Power of Attorney		
EXHIBIT C	Form of Lock-Up Agreement entered into by and among the Issuer, the underwriters and certain others, and is incorporated herein by reference to Exhibit D to the Underwriting Agreement filed on January 20, 2015 as Exhibit 1.1 to Amendment No. 1 to the Issuer's Registration Statement on Form S-1 (File No. 333-201318).		
EXHIBIT D	Form of Indemnification Agreement for Directors and Officers described in Item 6, filed on January 20, 2015 as Exhibit 10.26 to Amendment No. 1 to the Issuer's Registration Statement on Form S-1 (File No. 333-201318), and is incorporated herein by reference.		
EXHIBIT E	Investors' Rights Agreement dated as of May 23, 2014 described in Item 6, was filed on December 30, 2014 as Exhibit 4.2 to the Issuer's Registration Statement on Form S-1 (File No. 333-201318), and is incorporated herein by reference.		
EXHIBIT F ¹	Rule 10b5-1 Sales Plan between SVP VIII and J.P. Morgan Securities LLC, dated October 8, 2015		

¹ Certain information in this exhibit has been omitted and filed separately with the Securities and Exchange Commission, and confidential treatment has been requested with respect to such omitted portions.

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SIGNATURES

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.

Date: December 22, 2016

SOFINNOVA VENTURE PARTNERS VIII, L.P., a Delaware Limited Partnership

By: SOFINNOVA MANAGEMENT VIII, L.L.C., a Delaware Limited Liability Company

Its: General Partner

By:/s/ Nathalie Auber Nathalie Auber Attorney-in-Fact

SOFINNOVA MANAGEMENT VIII, L.L.C., a Delaware Limited Liability Company

By:/s/ Nathalie Auber Nathalie Auber Attorney-in-Fact

DR. JAMES I. HEALY DR. MICHAEL F. POWELL DR. ANAND MEHRA

By:/s/ Nathalie Auber Nathalie Auber Attorney-in-Fact CUSIP NO. 84652J103 13D Page 13 of 16

EXHIBIT INDEX

Exhibit Description

- A Agreement of Joint Filing.
- B Power of Attorney.
 - Form of Lock-Up Agreement entered into by and among the Issuer, the underwriters and certain others, and is
- C incorporated herein by reference to Exhibit D to the Underwriting Agreement filed on January 20, 2015 as Exhibit 1.1 to Amendment No. 1 to the Issuer's Registration Statement on Form S-1 (File No. 333-201318).
- D Form of Indemnification Agreement described in Item 6, filed on January 20, 2015 as Exhibit 10.26 to Amendment No. 1 to the Issuer's Registration Statement on Form S-1 (File No. 333-201318), and is incorporated herein by reference.
 - Investors' Rights Agreement dated as of May 23, 2014 described in Item 6, was filed on December 30, 2014 as
- E Exhibit 4.2 to the Issuer's Registration Statement on Form S-1 (File No. 333-201318), and is incorporated herein by reference.
- F¹ Rule 10b5-1 Sales Plan between SVP VIII and J.P. Morgan Securities LLC, dated October 8, 2015

¹ Certain information in this exhibit has been omitted and filed separately with the Securities and Exchange Commission, and confidential treatment has been requested with respect to such omitted portions.

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exhibit A

Agreement of Joint Filing

The undersigned hereby agree that a single Schedule 13D (or any amendment thereto) relating to the Common Stock of Spark Therapeutics, Inc. shall be filed on behalf of each of the undersigned and that this Agreement shall be filed as an exhibit to such Schedule 13D.

Date: December 22, 2016

SOFINNOVA VENTURE PARTNERS VIII, L.P., a Delaware Limited Partnership

By: SOFINNOVA MANAGEMENT VIII, L.L.C., a Delaware Limited Liability Company

Its: General Partner

By:/s/ Nathalie Auber Nathalie Auber Attorney-in-Fact

SOFINNOVA MANAGEMENT VIII, L.L.C., a Delaware Limited Liability Company

By:/s/ Nathalie Auber Nathalie Auber Attorney-in-Fact

DR. JAMES I. HEALY DR. MICHAEL F. POWELL DR. ANAND MEHRA

By:/s/ Nathalie Auber Nathalie Auber Attorney-in-Fact

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exhibit B

Power of Attorney

Nathalie Auber has signed this Schedule 13D as Attorney-In-Fact. Note that copies of the applicable Power of Attorney are already on file with the appropriate agencies.

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exhibit F

SVP VIII Rule 10b5-1 Plan