

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

FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Spark Therapeutics, Inc.
(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

46-2654405
(I.R.S. Employer
Identification No.)

3737 Market Street
Suite 1300
Philadelphia, Pennsylvania
(Address of Principal Executive Offices)

19104
(Zip Code)

2015 Employee Stock Purchase Plan
2015 Stock Incentive Plan
(Full Title of the Plan)

Jeffrey D. Marrazzo
Chief Executive Officer
3737 Market Street
Suite 1300
Philadelphia, PA 19104
(Name and Address of Agent For Service)

(888) 772-7560
(Telephone Number, Including Area Code, of Agent For Service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
	(Do not check if a smaller reporting company)	Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
2015 Stock Incentive Plan Common Stock, \$0.001 par value per share	1,510,533 shares	\$43.25	\$65,338,103	\$7,919
2015 Employee Stock Purchase Plan Common Stock, \$0.001 par value per share	377,633 shares	\$43.25	\$16,334,515	\$1,980

- (1) In accordance with Rule 416 under the Securities Act of 1933, as amended, this registration statement shall be deemed to cover any additional securities that may from time to time be offered or issued to prevent dilution resulting from stock splits, stock dividends or similar transactions.
- (2) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(c) and 457(h) of the Securities Act of 1933, as amended. The price per share and aggregate offering price are calculated on the basis of the average of the high and low prices of the Registrant's Common Stock as reported on The Nasdaq Global Select Market on January 16, 2019.

EXPLANATORY NOTE

This registration statement on Form S-8 (the "Registration Statement") relating to the 2015 Stock Incentive Plan and the 2015 Employee Stock Purchase Plan of Spark Therapeutics, Inc. (the "Registrant"), is being filed for the purpose of registering additional securities of the same class as other securities for which a Registration Statement on Form S-8 has previously been filed and is effective. Accordingly, this Registration Statement incorporates by reference the contents of the Registration Statement on Form S-8, File No. 333-201768, filed with the Securities and Exchange Commission on January 30, 2015 by the Registrant, relating to the Registrant's 2014 Stock Incentive Plan, as amended, 2015 Stock Incentive Plan, and 2015 Employee Stock Purchase Plan; the Registration Statement on Form S-8, File No. 333-210184, filed with the Securities and Exchange Commission on March 14, 2016 by the Registrant, relating to the Registrant's 2015 Stock Incentive Plan and 2015 Employee Stock Purchase Plan; the Registration Statement on Form S-8, File No. 333-215578, filed with the Securities and Exchange Commission on January 17, 2017 by the Registrant, relating to the Registrant's 2015 Stock Incentive Plan and 2015 Employee Stock Purchase Plan; and the Registration Statement on Form S-8, File No. 333-222569, filed with the Securities and Exchange Commission on January 16, 2018 by the Registrant, relating to the Registrant's 2015 Stock Incentive Plan and 2015 Employee Stock Purchase Plan, in each case, except for Item 8, Exhibits.

Item 8. Exhibits

Number	Description
4.1 (1)	Restated Certificate of Incorporation of the Registrant
4.2 (1)	Amended and Restated By-Laws of the Registrant
5.1	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant
23.1	Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in Exhibit 5.1)
23.2	Consent of KPMG LLP
24.1	Power of attorney (included on the signature pages of this Registration Statement)
99.1 (2)	2015 Stock Incentive Plan
99.2 (2)	2015 Employee Stock Purchase Plan

- (1) Previously filed with the Securities and Exchange Commission on February 6, 2015 as an Exhibit to the Registrant's Current Report on Form 8-K (File No. 001-36819) and incorporated herein by reference.
 - (2) Previously filed on December 30, 2014 with the Securities and Exchange Commission as an Exhibit to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-201318) and incorporated herein by reference.
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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Philadelphia, Commonwealth of Pennsylvania, on this 24th day of January, 2019.

Spark Therapeutics, Inc.

By: /s/ Jeffrey D. Marrazzo
Jeffrey D. Marrazzo
Chief Executive Officer

SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of Spark Therapeutics, Inc., hereby severally constitute and appoint Jeffrey D. Marrazzo, Stephen Webster, and Joseph La Barge and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below, the registration statement on Form S-8 filed herewith and any and all subsequent amendments to said registration statement, and generally to do all such things in our names and on our behalf in our capacities as officers and directors to enable Spark Therapeutics, Inc. to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said registration statement and any and all amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Jeffrey D. Marrazzo</u> Jeffrey D. Marrazzo	Director and Chief Executive Officer (Principal Executive Officer)	January 24, 2019
<u>/s/ Stephen W. Webster</u> Stephen W. Webster	Chief Financial Officer (Principal Financial and Accounting Officer)	January 24, 2019
<u>/s/ Katherine A. High, M.D.</u> Katherine A. High, M.D.	Director	January 24, 2019
<u>/s/ Steven M. Altschuler, M.D.</u> Steven M. Altschuler, M.D.	Director	January 24, 2019
<u>/s/ Lars Ekman, M.D., Ph.D.</u> Lars Ekman, M.D., Ph.D.	Director	January 24, 2019
<u>/s/ Anand Mehra, M.D.</u> Anand Mehra, M.D.	Director	January 24, 2019
<u>/s/ Vincent Milano</u> Vincent Milano	Director	January 24, 2019
<u>/s/ Robert J. Perez</u> Robert J. Perez	Director	January 24, 2019
<u>/s/ Elliott Sigal, M.D., Ph.D.</u> Elliott Sigal, M.D., Ph.D.	Director	January 24, 2019
<u>/s/ Lota Zoth, CPA</u> Lota Zoth, CPA	Director	January 24, 2019

WILMERHALE

January 24, 2019

Spark Therapeutics, Inc.
3737 Market Street, Suite 1300
Philadelphia, PA 19104

Re: 2015 Stock Incentive Plan
2015 Employee Stock Purchase Plan

Ladies and Gentlemen:

We have assisted in the preparation of a Registration Statement on Form S-8 (the "Registration Statement") to be filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to an aggregate of 1,888,166 shares of common stock, \$0.001 par value per share (the "Shares"), of Spark Therapeutics, Inc., a Delaware corporation (the "Company"), issuable under the Company's 2015 Stock Incentive Plan and 2015 Employee Stock Purchase Plan (collectively, the "Plans").

We have examined the Certificate of Incorporation and By-Laws of the Company, each as amended and restated to date, and originals, or copies certified to our satisfaction, of all pertinent records of the meetings of the directors and stockholders of the Company, the Registration Statement and such other documents relating to the Company as we have deemed material for the purposes of this opinion.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, photostatic or other copies, the authenticity of the originals of any such documents and the legal competence of all signatories to such documents.

We assume that the appropriate action will be taken, prior to the offer and sale of the Shares in accordance with the Plans, to register and qualify the Shares for sale under all applicable state securities or "blue sky" laws.

We express no opinion herein as to the laws of any state or jurisdiction other than the state laws of the State of New York, the General Corporation Law of the State of Delaware and the federal laws of the United States of America.

It is understood that this opinion is to be used only in connection with the offer and sale of the Shares while the Registration Statement is in effect.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized for issuance and, when the Shares are issued and paid for in accordance with the terms and conditions of the Plans, the Shares will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion with the Commission in connection with the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

WILMER CUTLER PICKERING HALE AND DORR LLP

By: /s/ Lia Der Marderosian
Lia Der Marderosian, a Partner

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Spark Therapeutics, Inc.:

We consent to the use of our report dated February 27, 2018, with respect to the consolidated balance sheets of Spark Therapeutics, Inc. and subsidiaries as of December 31, 2016 and 2017, the related consolidated statements of operations and comprehensive income (loss), stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2017, and the related notes (collectively, the consolidated financial statements), and the effectiveness of internal control over financial reporting as of December 31, 2017, incorporated herein by reference.

/s/ KPMG LLP

Philadelphia, Pennsylvania
January 24, 2019