

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933
SALARIUS PHARMACEUTICALS, INC.
(Exact name of Registrant as specified in its charter)**

Delaware
(State or other jurisdiction of
incorporation or organization)

2450 Holcombe Blvd., Suite J-608
Houston, TX 77021
(Address, including zip code, of Registrant's principal
executive offices)

46-5087339
(IRS Employer
Identification No.)

2015 Equity Incentive Plan
2015 Employee Stock Purchase Plan
(Full title of the plan)

Mark Rosenblum
Chief Financial Officer
Salarius Pharmaceuticals, Inc.
2450 Holcombe Blvd., Suite X
Houston, TX 77021
(Name and address of agent for service)

(832) 834-6992
(Registrant's telephone number, including area code)

Copies to:
Andrew L. Strong
Davina K. Kaile
2 Houston Center
909 Fannin, Suite 2000
Houston, TX 77010

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 type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		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) or the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Securities To Be Registered ⁽¹⁾	Amount To Be Registered ⁽²⁾	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value \$0.0001 per share	851,474 ⁽³⁾	\$1.13	\$962,166 ⁽⁴⁾	\$124.89
Common Stock, par value \$0.0001 per share	538,118 ⁽⁵⁾	\$1.32	\$710,316 ⁽⁶⁾	\$92.20
Common Stock, par value \$0.0001 per share	176,000 ⁽⁷⁾	\$0.61	\$107,360 ⁽⁸⁾	\$13.94

(1) The securities to be registered include rights to acquire Common Stock.

(2) Pursuant to Rule 416(a) under the Securities Act of 1933 (the "Securities Act"), this Registration Statement also covers an indeterminate number of additional shares of common stock to be offered or sold pursuant to the above-named plan that may be issued as a result of the anti-dilution and other adjustment provisions therein by reason of certain corporate transactions or events, including any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration which results in an increase in the number of the registrant's outstanding shares of common stock.

- (3) Represents the sum of (i) 811,474 additional shares of common stock issuable pursuant to the Salius Pharmaceuticals, Inc. 2015 Equity Incentive Plan, as amended and restated (the "2015 Plan") and (ii) 40,000 additional shares of common stock issuable pursuant to the Salius Pharmaceuticals, Inc. 2015 Employee Stock Purchase Plan (the "ESPP").
- (4) Computed in accordance with Rules 457(c) and 457(h) under the Securities Act, solely for the purposes of calculating the registration fee, based on the average of the high and low prices of the registrant's Common Stock as reported on the Nasdaq Capital Market on August 11, 2020.
- (5) Represents shares issuable upon exercise of certain options awarded under the 2015 Plan on July 14, 2020.
- (6) Computed in accordance with Rule 457(h) of the Securities Act solely for purposes of calculating the registration fee. The price at which the options may be exercised for the shares described above in Footnote 5 is \$1.32 per share.
- (7) Represents shares issuable upon exercise of certain options awarded under the 2015 Plan on March 23, 2020.
- (8) Computed in accordance with Rule 457(h) of the Securities Act solely for purposes of calculating the registration fee. The price at which the options may be exercised for the shares described above in Footnote 7 is \$0.61 per share.

The Registration Statement shall become effective upon filing in accordance with Rule 462 under the Securities Act.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

General Instruction E Information

This Registration Statement is being filed for the purpose of registering an addition 1,565,592 shares of the Registrant's common stock, comprising of (i) 811,474 shares of common stock issuable under the Registrant's 2015 Plan (ii) 176,000 shares of common stock issuable upon exercise of options awarded under the 2015 Plan on March 23, 2020, (iii) 538,118 shares of common stock issuable upon exercise of options awarded under the 2015 Plan on July 17, 2020, and (iv) 40,000 shares of common stock issuable under the ESPP. The shares of the Registrant's common stock previously reserved for issuance under the 2015 Plan and ESPP were registered on the Registrant's Registration Statements on Form S-8 (File Nos. 333-201816, 333-210283, 333-216534, 333-223499 and 333-230104) filed with the Securities and Exchange Commission (the "Commission") on February 2, 2015, March 18, 2016, March 8, 2017, March 7, 2018 and March 6, 2019, respectively (the "Prior S-8s"). This Registration Statement relates to securities of the same class as those to which the Prior S-8s relate and is submitted in accordance with General Instruction E of Form S-8. Pursuant to General Instruction E of Form S-8, the contents of the Prior S-8s are incorporated by reference herein, excluding reports that the Registrant filed with the Commission that were incorporated into such Registration Statements in order to maintain current information about the Registrant.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed by Salarius Pharmaceuticals, Inc. (the "Registrant") with the Securities and Exchange Commission (the "Commission") are hereby incorporated by reference in this Registration Statement:

(a) Registrant's Annual Report on Form 10-K (File No. 001-36812) for the fiscal year ended December 31, 2019 filed with the Commission on March 23, 2020.

(b) Registrant's Quarterly Reports on Form 10-Q (File No. 001-36812) for the quarter ended March 31, 2020 filed with the Commission on May 14, 2020 and amended on Form 10-Q/A filed with the Commission on May 15, 2020 and for the quarter ended June 30, 2020 filed with the Commission on August 12, 2020.

(c) Registrant's Current Reports on Form 8-K (File No. 001-36812) filed with the Commission on February 7, 2020, March 11, 2020, May 10, 2020, June 18, 2020, June 19, 2020, July 29, 2020 and August 3, 2020.

(d) The description of the Registrant's common stock contained in the registration statement on Form 8-A filed on January 23, 2015 (File No. 001-36812) and any amendment or report filed with the Commission for the purpose of updating the description.

In addition, all documents filed by Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, (excluding any portions thereof furnished by the Registrant, including but not limited to information furnished under Item 2.02 and Item 7.01 and any exhibits relating to Item 2.02 or Item 7.01 furnished under Item 9.01 of Form 8-K and any certification required by 18 U.S.C. § 1350), on or after the date of this Registration Statement, prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents.

Any statement contained in this Registration Statement or in a document incorporated by reference in this Registration Statement shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in this Registration Statement or in any subsequently filed document that is deemed to be incorporated by reference in this Registration Statement modifies or supersedes such statement.

Item 8. Exhibits.

Exhibit No.	Description
4.1	Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-1 filed on December 29, 2014).
5.1	Opinion of Pillsbury Winthrop Shaw Pittman LLP.
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm.
23.2	Consent of Pillsbury Winthrop Shaw Pittman LLP (included in Exhibit 5.1).
24.1	Power of Attorney (contained on the signature page hereto).
99.1	Salius Pharmaceuticals, Inc. 2015 Equity Incentive Plan, as amended (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on June 19, 2020).
99.2	Forms of Stock Option Agreement, Notice of Exercise and Stock Option Grant Notice under the Salius Pharmaceuticals, Inc. 2015 Equity Incentive Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Annual Report on Form 10-K, filed on March 24, 2015).
99.3	Salius Pharmaceuticals, Inc. 2015 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Registration Statement on Form S-1/A, filed on January 13, 2015).

Item 9. Undertakings.

a. The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment hereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) to include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

b. The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

c. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore,

unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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 Houston, Texas, on the 14th day of August, 2020.

SALARIUS PHARMACEUTICALS, INC.

By: /s/ David Arthur
David Arthur
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David Arthur and Mark Rosenblum, and each of them, his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, to sign any and all amendments (including post-effective amendments) to this registration statement on Form S-8 and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto each of said attorneys-in-fact and agents, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-facts and agents, or his or her substitute or substitutes, or any of them, shall do or cause to be done by virtue hereof.

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

Signature	Title	Date
<u>/s/ David J. Arthur</u> David J. Arthur	President, Chief Executive Officer (Principal Executive Officer) and Director	August 14, 2020
<u>/s/ Mark J. Rosenblum</u> Mark J. Rosenblum	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	August 14, 2020
<u>/s/ William McVicar</u> William McVicar	Chairman of the Board	August 14, 2020
<u>/s/ Tess Burleson</u> Tess Burleson	Director	August 14, 2020
<u>/s/ Arnold C. Hanish</u> Arnold C. Hanish	Director	August 14, 2020
<u>/s/ Paul Lammers</u> Paul Lammers	Director	August 14, 2020
<u>/s/ Jonathan Lieber</u> Jonathan Lieber	Director	August 14, 2020
<u>/s/ Bruce McCreedy</u> Bruce McCreedy	Director and Interim Chief Science Officer	August 14, 2020

Pillsbury Winthrop Shaw Pittman LLP
2 Houston Center
909 Fannin, Suite 2000
Houston, TX 77010

August 14, 2020

Salarius Pharmaceuticals, Inc.
2450 Holcombe Blvd.
Suite J-608
Houston, TX 77021

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We are acting as counsel for Salarius Pharmaceuticals, Inc. , a Delaware corporation (the “Company”), in connection with the Registration Statement on Form S-8 (the “Registration Statement”) relating to the registration under the Securities Act of 1933 (the “Act”) of 1,520,446 shares of the Company’s common stock, par value \$0.0001 per share (the “Shares”), issuable pursuant to the Company’s 2015 Equity Incentive Plan and the Company’s 2015 Employee Stock Purchase Plan (collectively, the “Plans”).

We have reviewed and are familiar with such corporate proceedings and other matters as we have considered relevant or necessary for the opinions expressed in this letter. Based upon the foregoing, we are of the opinion that the Shares have been duly authorized and, when issued and sold in accordance with the Plans, will be validly issued, fully paid and nonassessable. The opinions set forth in this letter are limited to the General Corporation Law of the State of Delaware, as in effect on the date hereof.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Securities and Exchange Commission promulgated thereunder.

Very truly yours,

/s/ Pillsbury Winthrop Shaw Pittman LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2015 Equity Incentive Plan and the 2015 Employee Stock Purchase Plan of Salarius Pharmaceuticals, Inc. of our report dated March 23, 2020, with respect to the consolidated financial statements of Salarius Pharmaceuticals, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2019, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Houston, Texas
August 12, 2020