UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

SERES THERAPEUTICS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware (State or other jurisdiction of incorporation or organization) 27-4326290 (I.R.S. Employer Identification No.)

200 Sidney Street Cambridge, MA 02139 (Address of Principal Executive Offices) (Zip Code)

Seres Therapeutics, Inc. 2015 Incentive Award Plan Seres Therapeutics, Inc. 2015 Employee Stock Purchase Plan (Full Title of the Plan)

> Eric D. Shaff. President and Chief Executive Officer Seres Therapeutics, Inc. 200 Sidney Street Cambridge, MA 02139 (Name and Address of Agent for Service)

(617) 945-9626 (Telephone Number, including Area Code, of Agent for Service)

Copies to:

Peter N. Handrinos, Esq. Latham & Watkins LLP 200 Clarendon Street Boston, MA 02116 (617) 948-6060

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 \Box Non-accelerated filer \Box Accelerated filer Smaller reporting company

Emerging growth company

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

CALCULATION OF REGISTRATION FEE

	Amount to be	Proposed Maximum Offering Price	Proposed Maximum Aggregate	Amount of
Title of Securities to be Registered	Registered(1)	Per Share	Offering Price	Registration Fee
Common Stock, par value \$0.001 per share	400,000 shares(2)	\$6.04(3)	\$2,416,000.00	\$ 292.82
Common Stock, par value \$0.001 per share	1,637,469 shares(4)	\$6.04(3)	\$9,890,312.76	\$1,198.71

(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 under the Seres Therapeutics, Inc. 2015 Employee Stock Purchase Plan ("ESPP") and the Seres Therapeutics, Inc. 2015 Incentive Award Plan (the "Incentive Plan") to prevent dilution resulting from stock splits, stock dividends or similar transactions. In addition, pursuant to Rule 416(c) under the Securities Act of 1933, this registration statement also covers an indeterminate amount of interests to be offered or sold pursuant to the employee benefit plans described herein.

(2) Consists of 400,000 shares of Common Stock that may become issuable under the ESPP pursuant to its terms.

(3) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act of 1933, as amended, and based upon the average of the high and low prices of the Registrant's Common Stock as reported on the Nasdaq Global Select Market on February 28, 2019.

(4) Consists of 1,637,469 shares of Common Stock that may become issuable under the Incentive Plan pursuant to its terms.

PART I

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering an additional 400,000 shares of the common stock of Seres Therapeutics, Inc. (the "Registrant") to be issued pursuant to the ESPP and an additional 1,637,469 shares of the Registrant's common stock to be issued pursuant to the Incentive Plan. A Registration Statement of the Registrant on Form S-8 relating to the same employee benefit plans is effective.

INCORPORATION BY REFERENCE OF CONTENTS OF REGISTRATION STATEMENTS ON FORM S-8

Except as set forth below, the contents of the Registration Statements on Form S-8 (File Nos. 333-205253, 333-210171 and 333-223514) filed with the Securities and Exchange Commission, relating to the ESPP and Incentive Plan, are incorporated by reference herein.

Item 8. Exhibits.

Number	Description
4.1	Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-37456) filed on July 1, 2015)
4.2	Amended and Restated By-Laws of the Registrant (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K (File No. 001-37456) filed on July 1, 2015)
5.1+	Opinion of Latham & Watkins LLP, counsel to the Registrant
23.1+	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
23.2+	Consent of Latham & Watkins LLP (included in Exhibit 5.1)
24.1+	Power of attorney (included on signature pages below)
99.1	Seres Therapeutics, Inc. 2015 Incentive Award Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-204484) filed on May 27, 2015)
99.2	Seres Therapeutics, Inc. 2015 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-204484) filed on May 27, 2015)

+ Filed herewith

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 Cambridge, Commonwealth of Massachusetts, on this 6th day of March, 2019.

SERES THERAPEUTICS, INC.

By: /s/ Eric D. Shaff

Eric D. Shaff President and Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officer and directors of Seres Therapeutics, Inc. (the "Company"), hereby severally constitute and appoint the Chief Executive Officer of the Company, who is currently Eric D. Shaff and the Chief Legal Officer of the Company, who is currently Thomas J. DesRosier, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully 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 by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Roger J. Pomerantz Roger J. Pomerantz, M.D.	Chairman of the Board	March 6, 2019
/s/ Eric D. Shaff Eric D. Shaff	President, Chief Executive Officer and Director (Principal Executive Officer and Principal Financial and Accounting Officer)	March 6, 2019
/s/ Noubar B. Afeyan Noubar B. Afeyan, Ph.D.	Director	March 6, 2019
/s/ Dennis A. Ausiello Dennis A. Ausiello, M.D.	Director	March 6, 2019
/s/ Grégory Behar Grégory Behar	Director	March 6, 2019
/s/ Willard H. Dere Willard H. Dere, M.D.	Director	March 6, 2019
/s/ Kurt C. Graves Kurt C. Graves	Director	March 6, 2019
/s/ Richard N. Kender Richard N. Kender	Director	March 6, 2019
/s/ Lorence H. Kim Lorence H. Kim, M.D.	Director	March 6, 2019
/s/ Meryl Zausner Meryl Zausner	Director	March 6, 2019

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Milan	Washington, D.C.	

March 6, 2019

Seres Therapeutics, Inc. 200 Sidney Street Cambridge, MA 02139

Re: Registration Statement on Form S-8; 2,037,469 shares of Seres Therapeutics, Inc. Common Stock, \$0.001 par value per share

Ladies and Gentlemen:

We have acted as special counsel to Seres Therapeutics, Inc., a Delaware corporation (the "*Company*"), in connection with the preparation and filing by the Company with the Securities and Exchange Commission (the "*Commission*") of a registration statement on Form S-8 (the "*Registration Statement*") under the Securities Act of 1933, as amended (the "*Act*"), relating to the issuance by the Company of up to 2,037,469 shares of common stock of the Company, \$0.001 par value per share (the "*Shares*"), issuable under the Seres Therapeutics, Inc. 2015 Incentive Award Plan (the "*2015 Plan*") and the Seres Therapeutics, Inc. 2015 Employee Stock Purchase Plan (together with the 2015 Plan, the "*Plans*"). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the prospectus forming a part thereof, other than as expressly stated herein with respect to the issuance of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware (the "*DGCL*"), and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers, and have been issued by the Company for legal consideration in excess of par value in the circumstances contemplated by the Plans, assuming in each case that the individual grants or awards under the Plans are duly authorized by all necessary corporate action and duly granted or awarded and exercised in accordance with the requirements of law and the Plans (and the agreements and awards duly adopted thereunder and in accordance therewith), the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL.

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This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Latham & Watkins

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of Seres Therapeutics, Inc. of our report dated March 6, 2019 relating to the financial statements, which appears in Seres Therapeutics, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018.

/s/ PricewaterhouseCoopers LLP Boston, Massachusetts March 6, 2019