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.)

215 First Street Cambridge, MA 02142 (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)

Roger J. Pomerantz, M.D.
President and Chief Executive Officer
Seres Therapeutics, Inc.
215 First Street
Cambridge, MA 02142
(Name and Address of Agent for Service)

 $\begin{tabular}{ll} (617)\ 945-9626 \\ \end{tabular} \begin{tabular}{ll} (Felephone\ Number,\ including\ Area\ Code,\ of\ Agent\ for\ Service) \\ \end{tabular}$

Copies to:

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

Indicate by check mark whether the re	gistrant is a large acceler	ated filer, an accelerated file	er, a non-accelerated filer,	or a smaller reporting co	ompany. See the
definitions of "large accelerated filer,"	"accelerated filer" and "	'smaller reporting company'	in Rule 12b-2 of the Excl	hange Act.	

Large accelerated filer \square	Accelerated filer \square
Non-accelerated filer ⊠	Smaller reporting company \square
(Do not check if a smaller reporting company)	

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value \$0.001 per share	390,820 shares(2)	\$29.08(3)	\$11,365,045	\$1,144
Common Stock, par value \$0.001 per share	1,563,280 shares(4)	\$29.08(5)	\$45,460,182	\$4,577

- (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) Consists of 390,820 shares of Common Stock that have become issuable under the Seres Therapeutics, Inc. 2015 Employee Stock Purchase Plan 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 March 7, 2016.
- (4) Consists of 1,563,280 shares of Common Stock that have become issuable under the Seres Therapeutics, Inc. 2015 Incentive Award Plan pursuant to its terms.
- (5) 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 March 7, 2016.

PART I

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering an additional 390,820 shares of the Registrant's common stock to be issued pursuant to the Registrant's 2015 Employee Stock Purchase Plan and an additional 1,563,280 shares of the Registrant's common stock to be issued pursuant to the Registrant's 2015 Incentive Award 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 STATEMENT ON FORM S-8

Except as set forth below, the contents of the Registration Statement on Form S-8 (File No. 333-205253), filed with the Securities and Exchange Commission on June 26, 2015, relating to the Registrant's 2015 Employee Stock Purchase Plan and the Registrant's 2015 Incentive Award Plan, is incorporated by reference herein.

Item 8. Exhibits

The Exhibit Index immediately preceding the exhibits is incorporated by reference.

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, State of Massachusetts, on this 14th day of March, 2016.

SERES THERAPEUTICS, INC.

By: /s/ Roger J. Pomerantz

Roger J. Pomerantz, M.D.
President, Chief Executive Officer and Chairman of the
Board

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Seres Therapeutics, Inc., hereby severally constitute and appoint Roger J. Pomerantz, M.D. and Eric D. Shaff, 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	<u>Title</u>	<u>Date</u>
/s/ Roger J. Pomerantz Roger J. Pomerantz	President, Chief Executive Officer and Chairman of the Board (Principal Executive Officer)	March 14, 2016
/s/ Eric D. Shaff Eric D. Shaff	Chief Financial Officer (Principal Financial and Accounting officer)	March 14, 2016
/s/ Noubar B. Afeyan Noubar B. Afeyan, Ph.D.	Director	March 14, 2016
/s/ Dennis A. Ausiello Dennis A. Ausiello, M.D.	Director	March 14, 2016
/s/ Grégory Behar Grégory Behar	Director	March 14, 2016

/s/ Werner Cautreels Werner Cautreels, Ph.D.	Director	March 14, 2016
/s/ Kurt C. Graves Kurt C. Graves	Director	March 14, 2016
/s/ Peter Barton Hutt Peter Barton Hutt	Director	March 14, 2016
/s/ Richard N. Kender Richard N. Kender	Director	March 14, 2016
/s/ Lorence H. Kim Lorence H. Kim, M.D.	Director	March 14, 2016

INDEX TO 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 the signature pages of this registration statement)
99.1	Seres Therapeutics, Inc. 2015 Incentive Award Plan (incorporated by reference to Exhibit 99.2 to the Registrant's Registration Statement on Form S-8 (Reg. No. 333-205253) filed on June 26, 2015)
99.2	Seres Therapeutics, Inc. 2015 Employee Stock Purchase Plan (incorporated by reference to Exhibit 99.3 to the Registrant's Registration Statement on Form S-8 (Reg. No. 333-205253) filed on June 26, 2015)

+ Filed herewith

LATHAM & WATKINS LLP

John Hancock Tower, 27th Floor 200 Clarendon Street

Boston, Massachusetts 02116

Tel: +1.617.948.6000 Fax: +1.617.948.6001

www.lw.com

FIRM / AFFILIATE OFFICES

Abu Dhabi Milan
Barcelona Moscow
Beijing Munich
Boston New Jersey
Brussels New York
Century City Orange County
Chicago Paris

Dubai Riyadh
Düsseldorf Rome
Frankfurt San Diego
Hamburg San Francisco
Hong Kong Shanghai
Houston Silicon Valley
London Singapore
Los Angeles Tokyo

Los Angeles Tokyo Madrid Washington, D.C.

March 14, 2016

Seres Therapeutics, Inc. 215 First Street Cambridge, MA 02142

> Re: Registration Statement on Form S-8; 1,954,100 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 1,954,100 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 (the "*2015 ESPP*" and, 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

March 14, 2016 Page 2 LATHAM&WATKINS LLP

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.

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 LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 14, 2016 relating to the financial statements, which appears in Seres Therapeutics, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2015.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts March 14, 2016