

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

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

**VOYAGER THERAPEUTICS, INC.**

(Exact Name of Registrant as Specified in its Charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**46-3003182**  
(I.R.S. Employer  
Identification No.)

**Voyager Therapeutics, Inc.**  
75 Sidney Street,  
**Cambridge, Massachusetts**  
**(857) 259-5340**

(Address of Principal Executive Offices)

**Voyager Therapeutics, Inc. 2015 Stock Option and Incentive Plan**  
**Voyager Therapeutics, Inc. 2015 Employee Stock Purchase Plan**  
(Full Title of the Plans)

**Steven M. Paul, M.D.**  
**Chief Executive Officer**  
**Voyager Therapeutics, Inc.**  
75 Sidney Street,  
**Cambridge, Massachusetts, 02139**  
(Name and Address of Agent For Service)

**Copy to:**

**Mitchell S. Bloom, Esq.**  
**Edwin M. O'Connor, Esq.**  
**Laurie A. Burlingame, Esq.**  
Goodwin Procter LLP  
100 Northern Avenue  
Boston, Massachusetts 02210  
(617) 570-1000

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

Large accelerated filer	<input type="radio"/>		Accelerated filer	x
Non-accelerated filer	<input type="radio"/> (Do not check if a smaller reporting company)		Smaller reporting company	o

**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	Amount of Registration Fee
Common Stock, \$0.001 par value per share	1,070,635 shares (3)	\$ 12.19	\$ 13,051,040.65	\$ 1,512.62
Common Stock, \$0.001 par value per share	267,658 shares (4)	\$ 12.19	\$ 3,262,751.02	\$ 378.15

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall also cover any additional shares of common stock which become issuable under the above-named plans by reason of any stock dividend, stock split, recapitalization or any 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.
- (2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(h) of the Securities Act, and based on the average of the high and low sale prices of the Registrant's common stock, as quoted on the Nasdaq Global Select Market, on March 13, 2017.
- (3) Represents an automatic increase to the number of shares available for issuance under the 2015 Stock Option and Incentive Plan (the "2015 Plan"), effective January 1, 2017. Shares available for issuance under the 2015 Stock Option and Incentive Plan were previously registered on registration statements on Form S-8 filed with the Securities and Exchange Commission on March 17, 2016 (Registration No. 333-210258) and November 12, 2015 (Registration No. 333-207958).
- (4) Represents an automatic increase to the number of shares available for issuance under the 2015 Employee Stock Purchase Plan (the "ESPP"), effective January 1, 2017. Shares available for issuance under the 2015 Employee Stock Purchase Plan were previously registered on registration statements on Form S-8 filed with the Securities and Exchange Commission on March 17, 2016 (Registration No. 333-210258) and November 12, 2015 (Registration No. 333-207958).

## EXPLANATORY NOTE

This Registration Statement on Form S-8 registers additional shares of Common Stock under the Registrant's 2015 Plan and ESPP.

The number of shares of Common Stock reserved and available for issuance under the 2015 Plan is subject to an automatic annual increase on each January 1, beginning in 2016, by an amount equal to four percent of the number of shares of Common Stock issued and outstanding on the immediately preceding December 31 or such lesser number of shares of Common Stock as determined by the Administrator (as defined in the 2015 Plan). Accordingly, on January 1, 2017, the number of shares of Common Stock reserved and available for issuance under the 2015 Plan increased by 1,070,635. This Registration Statement registers these additional 1,070,635 shares of Common Stock. The additional shares are of the same class as other securities relating to the 2015 Plan for which the Registrant's registration statement filed on Form S-8 (Registration No. 333-207958) on November 12, 2015, is effective.

The number of shares of Common Stock reserved and available for issuance under the ESPP is subject to an automatic annual increase on each January 1, beginning in 2016, by an amount equal to one percent of the number of shares of Common Stock issued and outstanding on the immediately preceding December 31 or such lesser number of shares of Common Stock as determined by the Administrator (as defined in the ESPP). Accordingly, on January 1, 2017, the number of shares of Common Stock reserved and available for issuance under the ESPP increased by 267,658. This Registration Statement registers these additional 267,658 shares of Common Stock. The additional shares are of the same class as other securities relating to the ESPP for which the Registrant's registration statement filed on Form S-8 (Registration No. 333-207958) on November 12, 2015, is effective.

The information contained in the Registrant's registration statement on Form S-8 (Registration No. 333-207958) is hereby incorporated by reference pursuant to General Instruction E.

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## Part II

### INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

#### Item 8. Exhibits.

See the Exhibit Index on the page immediately preceding the exhibits for a list of exhibits filed as part of this registration statement on Form S-8, which Exhibit Index is incorporated herein by reference.

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## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 the March 15, 2017.

#### VOYAGER THERAPEUTICS, INC.

By: /s/ Steven M. Paul, M.D.  
Steven M. Paul, M.D.  
Chief Executive Officer, President and Director

#### POWER OF ATTORNEY AND SIGNATURES

KNOW ALL BY THESE PRESENT, that each individual whose signature appears below hereby constitutes and appoints each of Steven Paul, M.D. and Jane Henderson as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, 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 all documents in connection therewith, with the Securities and Exchange Commission granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, 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 person in the capacities and on the date indicated.

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Steven Paul, M.D.</u> Steven Paul, M.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	March 15, 2016
<u>/s/ Jane Henderson</u> Jane Henderson	Chief Financial Officer (Principal Financial and Accounting Officer)	March 15, 2016
<u>/s/ Mark Levin</u>	Director	March 15, 2016

Mark Levin

/s/ Jim Geraghty  
Jim Geraghty

Director

March 15, 2016

/s/ Michael Higgins  
Michael Higgins

Director

March 15, 2016

/s/ Perry A. Karsen  
Perry A. Karsen

Director

March 15, 2016

/s/ Steven Hyman, M.D.  
Steven Hyman, M.D.

Director

March 15, 2016

/s/ Wendy Dixon, Ph.D.  
Wendy Dixon, Ph.D.

Director

March 15, 2016

/s/ Glenn Pierce, M.D., Ph.D.  
Glenn Pierce, M.D., Ph.D.

Director

March 15, 2016

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### EXHIBIT INDEX

<b>Exhibit No.</b>	<b>Description</b>
4.1	Specimen Common Stock Certificate of the registrant (Incorporated by reference to Exhibit 4.1 to the registrant's Registration Statement on Form S-1, as amended (File No. 333-207367) filed on October 28, 2015).
4.2	Fifth Amended and Restated Certificate of Incorporation (Incorporated by reference to Exhibit 3.1 to the registrant's Current Report on Form 8-K (File No. 001-37625) filed on November 16, 2015).
4.3	Amended and Restated By-laws (Incorporated by reference to Exhibit 3.2 to the registrant's Current Report on Form 8-K (File No. 001-37625) filed on November 16, 2015).
4.4	Second Amended and Restated Investors' Rights Agreement by and among the registrant and certain of its stockholders, dated April 10, 2015 (Incorporated by reference to Exhibit 4.2 to the registrant's Registration Statement on Form S-1, as amended (File No. 333-207367) filed on October 28, 2015).
5.1*	Opinion of Goodwin Procter LLP.
23.1*	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
23.2*	Consent of Goodwin Procter LLP (included in Exhibit 5.1).
24.1*	Power of attorney (included on signature page).
99.2	2015 Stock Option and Incentive Plan and forms of award agreements thereunder (Incorporated by reference to Exhibit 10.2 to the registrant's Registration Statement on Form S-1, as amended (File No. 333-207367) filed on October 28, 2015).
99.3	2015 Employee Stock Purchase Plan (Incorporated by reference to Exhibit 10.12 to the registrant's Registration Statement on Form S-1, as amended (File No. 333-207367) filed on October 28, 2015).

\* Filed herewith.

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March 15, 2017

Voyager Therapeutics, Inc.  
75 Sidney Street  
Cambridge, MA 02139

Re: Securities Being Registered under Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to you in connection with your filing of a Registration Statement on Form S-8 (the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), on or about the date hereof relating to an aggregate of 1,338,293 shares (the "Shares") of Common Stock, \$0.001 par value per share, of Voyager Therapeutics, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's 2015 Stock Option and Incentive Plan (the "Stock Plan") and the Company's 2015 Employee Stock Purchase Plan (collectively, the "Plans").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinions set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

The opinion set forth below is limited to the Delaware General Corporation Law.

For purposes of the opinion set forth below, we have assumed that a sufficient number of authorized but unissued shares of the Company's Common Stock will be available for issuance when the Shares are issued.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance and delivery against payment therefor in accordance with the terms of the Plans, will be validly issued, fully paid and nonassessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement. In giving our consent, we do not 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 thereunder.

Very truly yours,

/S/ GOODWIN PROCTER LLP

GOODWIN PROCTER LLP

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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 Stock Option and Incentive Plan and the 2015 Employee Stock Purchase Plan of Voyager Therapeutics, Inc. of our report dated March 15, 2017, with respect to the consolidated financial statements of Voyager Therapeutics, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2016, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts  
March 15, 2017

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