
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

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

Intellia Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

36-4785571
(I.R.S. Employer
Identification No.)

**40 Erie Street, Suite 130
Cambridge, Massachusetts (857) 285-6200**
(Address, including zip code and telephone number, including area code, of Registrant's principal executive offices)

**Intellia Therapeutics, Inc. 2015 Amended and Restated Stock Option and Incentive Plan
Intellia Therapeutics, Inc. 2016 Employee Stock Purchase Plan**
(Full title of the plans)

Nessan Bermingham, Ph.D.
Founder, President and Chief Executive Officer
**40 Erie Street, Suite 130
Cambridge, Massachusetts
(857) 285-6200**
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

**Arthur R. McGivern, Esq.
William D. Collins, Esq.
Goodwin Procter LLP
100 Northern Ave.
Boston, Massachusetts 02210
(617) 570-1000**

**José E. Rivera, Esq.
Executive Vice President, General Counsel
Intellia Therapeutics, Inc.
40 Erie Street, Suite 130
Cambridge, Massachusetts
(857) 285-6200**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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. (Check one):

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input checked="" 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 13(a) of the Exchange Act.

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, \$0.0001 par value per share	1,800,926 shares(2)	\$11.44(3)	\$20,602,593.40(3)	\$2,387.84

- (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 (i) 1,440,741 additional shares issuable under the Amended and Restated 2015 Stock Option and Incentive Plan and (ii) 360,185 additional shares issuable under the 2016 Employee Stock Purchase Plan, both of which represent automatic annual increases to the number of shares available for issuance under the respective plans.
- (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. The price per share and aggregate offering price are calculated on the basis of \$11.44, the average of the high and low price of the registrant's Common Stock as reported on the NASDAQ Global Market on May 31, 2017.

Statement of Incorporation by Reference

This Registration Statement on Form S-8 is filed to register the offer and sale of (i) an additional 1,440,741 shares of the Registrant's common stock, \$0.0001 par value per share, to be issued under the Registrant's Amended and Restated 2015 Stock Option and Incentive Plan and (ii) an additional 360,185 shares of the Registrant's common stock, \$0.0001 par value per share, to be issued under the Registrant's 2016 Employee Stock Purchase Plan. This Registration Statement incorporates by reference the contents of the registration statement on Form S-8, File No. 333-211200, filed by the Registrant on May 6, 2016, relating to the Registrant's Amended and Restated 2015 Stock Option and Incentive Plan and 2016 Employee Stock Purchase Plan pursuant to General Instruction E.

Part II

Information Required in the Registration Statement

Item 8. Exhibits

Refer to the Exhibit Index on the page immediately preceding the exhibits for a list of exhibits filed as part of this registration statement, which Exhibit Index is incorporated herein 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, Commonwealth of Massachusetts, on this 5th day of June, 2017.

INTELLIA THERAPEUTICS, INC.

By: /s/ Nesson Bermingham
Nesson Bermingham, Ph.D.
Founder, President and Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

KNOW ALL BY THESE PRESENT, that each individual whose signature appears below hereby constitutes and appoints each of Nesson Bermingham, Ph.D., José E. Rivera, J.D. and Graeme Bell 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/ Nesson Bermingham</u> Nesson Bermingham, Ph.D.	Founder, President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	June 5, 2017
<u>/s/ Graeme Bell</u> Graeme Bell	Executive Vice President, Chief Financial Officer <i>(Principal Financial Officer)</i>	June 5, 2017
<u>/s/ Nicole Heifner</u> Nicole Heifner	Senior Vice President, Accounting <i>(Principal Accounting Officer)</i>	June 5, 2017
<u>/s/ Caroline Dorsa</u> Caroline Dorsa	Director	June 5, 2017
<u>/s/ Jean François Formela</u> Jean François Formela, M.D.	Director	June 5, 2017
<u>/s/ Carl L. Gordon</u> Carl L. Gordon, Ph.D.	Director	June 5, 2017

/s/ Perry Karsen Director June 5, 2017
Perry Karsen

/s/ John M. Leonard Executive Vice President, Research & Development and Director June 5, 2017
John M. Leonard, M.D.

EXHIBIT INDEX

Number	Description
4.1(1)	Second Restated Certificate of Incorporation of the Registrant
4.2(1)	Second Amended and Restated By-Laws of the Registrant
5.1	Opinion of Goodwin Procter LLP
23.1	Consent of Goodwin Procter LLP (included in Exhibit 5.1)
23.2	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm
24.1	Power of attorney (included on the signature pages of this registration statement)
99.1(1)	Amended and Restated 2015 Stock Option and Incentive Plan
99.2(1)	2016 Employee Stock Purchase Plan

(1) Previously filed with the Securities and Exchange Commission as an Exhibit to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-210689), and incorporated herein by reference.

June 5, 2017

Intellia Therapeutics, Inc.
40 Erie Street, Suite 130
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 (a) 1,440,741 shares (the "2015 Plan Shares") of Common Stock, \$0.0001 par value per share ("Common Stock"), of Intellia Therapeutics, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's Amended and Restated 2015 Stock Option and Incentive Plan (the "2015 Plan"), and (b) 360,185 shares of Common Stock (collectively with the 2015 Plan Shares, the "Shares") that may be issued under the 2016 Employee Stock Purchase Plan (collectively with the 2015 Plan, 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

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 14, 2017, relating to the financial statements of Intellia Therapeutics, Inc., appearing in the Annual Report on Form 10-K of Intellia Therapeutics, Inc. for the year ended December 31, 2016.

/s/ Deloitte & Touche LLP

Boston, Massachusetts

June 5, 2017