

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

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

INOTEK PHARMACEUTICALS CORPORATION

(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

04-3475813
(I.R.S. Employer
Identification No.)

Inotek Pharmaceuticals Corporation
91 Hartwell Avenue
Lexington, MA 02421
(781) 676-2100
(Address of Principal Executive Offices)

Inotek Pharmaceuticals Corporation Amended and Restated 2014 Stock Option and Incentive Plan
Inotek Pharmaceuticals Corporation Amended and Restated 2014 Employee Stock Purchase Plan
(Full Title of the Plans)

David P. Southwell
President and Chief Executive Officer
91 Hartwell Avenue
Lexington, MA 02421
(781) 676-2100
(Name and Address of Agent For Service)

Copy to:
Mitchell S. Bloom
Edwin M. O'Connor
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

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered ⁽¹⁾	Proposed Maximum Offering Price per Share ⁽³⁾	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.01 par value per share	1,079,452 shares ⁽²⁾	\$1.80	\$1,943,013.60	\$225.20
Common Stock, \$0.01 par value per share	31,555 shares ⁽⁴⁾	\$1.80	\$56,799.00	\$6.58
Total	1,111,007 shares			\$231.78

- (1) Pursuant to Rule 416(a) 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 Amended and Restated 2014 Stock Option and Incentive Plan (the “Option Plan”) or the Amended and Restated 2014 Employee Stock Purchase Plan (the “ESPP”) 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 our outstanding shares of common stock. Pursuant to Rule 416(c) under the Securities Act, this Registration Statement shall also cover an indeterminate amount of interests to be offered or sold pursuant to the employee benefit plans described herein.
 - (2) Represents shares of common stock that were automatically added to the shares authorized for future issuance under the Option Plan.
 - (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457 (c) and (h) of the Securities Act, and based on \$1.80, the average of the high and low prices reported in the consolidated reporting system as of a specified date within 5 business days prior to the date of filing the registration statement.
 - (4) Represents shares of common stock that were automatically added to the shares authorized for future issuance under the ESPP.
-
-
-

**REGISTRATION OF ADDITIONAL SECURITIES PURSUANT TO GENERAL
INSTRUCTION E**

This Registration Statement is being filed for the purpose of registering an additional (i) 1,079,452 shares of the Registrant's common stock to be issued pursuant to the Registrant's Amended and Restated 2014 Stock Option and Incentive Plan (the "Option Plan") and (ii) 31,555 shares of the Registrant's common stock to be issued pursuant to the Registrant's Amended and Restated 2014 Employee Stock Purchase Plan (the "ESPP"), which are the same class as other securities for which a registration statement on this form relating to an employee benefit plan is effective. Pursuant to General Instruction E of Form S-8, this Registration Statement hereby incorporates by reference the contents of (i) the registration statement on Form S-8 filed by the Registrant on May 28, 2015 (Registration No. 333-204501) with respect to the Option Plan and ESPP and (i) the registration statement on Form S-8 filed by the Registrant on June 29, 2016 (Registration No. 333-212308) with respect to the Option Plan and ESPP.

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, which Exhibit Index is incorporated herein by reference.

SIGNATURES

Pursuant to the requirements of the Securities Act, 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 Lexington, Commonwealth of Massachusetts, on the 23rd day of March, 2017.

INOTEK PHARMACEUTICALS CORPORATION

By: /s/ David P. Southwell
David P. Southwell
*President, Chief Executive Officer
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 David P. Southwell and Dale Ritter 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 SEC 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, this Registration Statement has been signed by the following person in the capacities and on the date indicated below.

Name	Title	Date
<u>/s/ David P. Southwell</u> David P. Southwell	President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	March 23, 2017
<u>/s/ Dale Ritter</u> Dale Ritter	Vice President–Finance <i>(Principal Financial and Accounting Officer)</i>	March 23, 2017
<u>/s/ Timothy Barberich</u> Timothy Barberich	Director	March 23, 2017
<u>/s/ Carsten Boess</u> Carsten Boess	Director	March 23, 2017
<u>/s/ J. Martin Carroll</u> J. Martin Carroll	Director	March 23, 2017
<u>/s/ Paul G. Howes</u> Paul G. Howes	Director	March 23, 2017
<u>/s/ Patrick Machado</u> Patrick Machado	Director	March 23, 2017
<u>/s/ Gary M. Phillips, M.D.</u> Gary M. Phillips, M.D.	Director	March 23, 2017
<u>/s/ Richard N. Spivey, PharmD, Ph.D.</u> Richard N. Spivey, PharmD, Ph.D.	Director	March 23, 2017

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
4.1	Amended and Restated Certificate of Incorporation of Inotek Pharmaceuticals Corporation (Incorporated by reference to Exhibit 3.1 to the registrant's Annual Report on Form 10-K (File No. 001-36829)).
4.2	Amended and Restated By-Laws of Inotek Pharmaceuticals Corporation (Incorporated by reference to Exhibit 3.2 to the registrant's Annual Report on Form 10-K (File No. 001-36829)).
4.3	Form of Common Stock Certificate of Inotek Pharmaceuticals Corporation (Incorporated by reference to Exhibit 4.1 to the registrant's Annual Report on Form 10-K (File No. 001-36829)).
4.4	Third Amended and Restated Investor Rights Agreement, dated as of June 9, 2010, by and among the Registrant and each of the parties listed on Schedule A thereto (Incorporated by reference to Exhibit 4.2 to the registrant's Registration Statement on Form S-1, as amended (File No. 333-199859)).
4.5	Indenture between Inotek Pharmaceuticals Corporation, and Wilmington Trust, National Association, as the trustee, relating to the 5.0% Convertible Senior Notes due 2020 (Incorporated by reference to Exhibit 4.1 to the registrant's Form 8-K filed with the SEC on February 26, 2015 (File No. 001-36829)).
4.6	Base Indenture, dated as of August 5, 2016, by and between the Registrant and Wilmington Trust, National Association (Incorporated by reference to Exhibit 4.1 to the registrant's Form 8-K filed with the SEC on August 5, 2016) (File No. 001-36829).
4.7	First Supplemental Indenture, dated as of August 5, 2016, by and between the Registrant and Wilmington Trust, National Association (Incorporated by reference to Exhibit 4.2 to the registrant's Form 8-K filed with the SEC on August 5, 2016) (File No. 001-36829).
4.8	Form of 5.75% Convertible Senior Note due 2021 (Incorporated by reference to Exhibit 4.3 to the registrant's Form 8-K filed with the SEC on August 5, 2016) (File No. 001-36829).
5.1*	Opinion of Goodwin Procter LLP.
23.1*	Consent of RSM US 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).

* Filed herewith.



March 23, 2017

Inotek Pharmaceuticals Corporation
91 Hartwell Avenue
Lexington, MA 02421

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 1,111,007 shares (the "Shares") of Common Stock, \$0.01 par value per share, of Inotek Pharmaceuticals Corporation, a Delaware corporation (the "Company"), that may be issued pursuant to the Company's Amended and Restated 2014 Stock Option and Incentive Plan and Amended and Restated 2014 Employee Stock Purchase Plan, as applicable (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 and other inquiries 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 the Registration Statement on Form S-8 pertaining to the Amended and Restated 2014 Stock Option and Incentive Plan and the Amended and Restated 2014 Employee Stock Purchase Plan of Inotek Pharmaceuticals Corporation of our report dated March 16, 2017, relating to the consolidated financial statements of Inotek Pharmaceuticals Corporation, appearing in the Annual Report on Form 10-K of Inotek Pharmaceuticals Corporation for the year ended December 31, 2016.

/s/ RSM US LLP

Boston, Massachusetts
March 23, 2017