

**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
131 Hartwell Avenue, Suite 105
Lexington, MA 02421
(781) 676-2100
(Address of Principal Executive Offices)

Inotek Pharmaceuticals Corporation 2004 Stock Option and Incentive Plan
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
131 Hartwell Avenue, Suite 105
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
Exchange Place
53 State Street
Boston, Massachusetts 02109
(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	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.01 par value per share	10,958 shares (2)	\$40.578 (3)	\$444,653.724	\$51.67
Common Stock, \$0.01 par value per share	2,175,216 shares (4)	\$5.69 (5)	\$12,376,979.040	\$1,438.21
Common Stock, \$0.01 par value per share	160,277 shares (6)	\$5.69 (7)	\$911,976.130	\$105.98
Total	2,346,451 shares			\$1,595.86

- (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 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 issuable upon the exercise of outstanding options under the 2004 Stock Option and Incentive Plan, as amended (the "2004 Plan"). No further grants will be made under the 2004 Plan.
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457 of the Securities Act. For the shares of common stock reserved for issuance upon the exercise of outstanding awards granted under the 2004 Plan, the Proposed Maximum Offering Price Per Share is \$40.578 per share, which is the weighted average exercise price (rounded to the nearest cent) of the outstanding awards under the 2004 Plan.
- (4) Represents shares of common stock reserved for future issuance under the Amended and Restated 2014 Stock Option and Incentive Plan, as amended (the "2014 Plan"). The 2014 Plan also provides that an additional number of shares will automatically be added to the shares authorized for issuance under the 2014 Plan on January 1 of each year, beginning on January 1, 2016. The number of shares added each year will be equal to 4% of the outstanding shares on the immediately preceding December 31.
- (5) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457 of the Securities Act, and based on \$5.69, the average of the high and low prices reported in the consolidated reporting system as of May 21, 2015.
- (6) Represents shares of common stock available for future issuance under the Amended and Restated 2014 Employee Stock Purchase Plan (the "ESPP"). The ESPP also provides that an additional number of shares will automatically be added to the shares authorized for issuance under the ESPP on January 1 of each year, beginning on January 1, 2016. The number of shares added each year will be equal to the lesser of: (i) the number of shares necessary to set the number of shares of unissued common stock under the ESPP at 1% of the outstanding number of shares as of January 1 of the applicable year or (ii) 600,000 shares of common stock.
- (7) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457 of the Securities Act, and based on \$5.69, the average of the high and low prices reported in the consolidated reporting system as of May 21, 2015.

Proposed sales to take place as soon after the effective date of the Registration Statement as awards are granted, exercised or distributed under the above-named plans.

Part I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.

The documents containing the information specified in this Item 1 will be sent or given to participants as specified by Rule 428(b)(1) under the Securities Act. In accordance with the rules and regulations of the Securities and Exchange Commission (the "Commission") and the instructions to Form S-8, such documents are not being filed with the Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act.

Item 2. Registrant Information and Employee Plan Annual Information.

The documents containing the information specified in this Item 2 will be sent or given to participants as specified by Rule 428(b)(1) under the Securities Act. In accordance with the rules and regulations of the Commission and the instructions to Form S-8, such documents are not being filed with the either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act.

Part II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The registrant hereby incorporates by reference into this Registration Statement the following documents filed with the SEC:

- (a) The Registrant's Annual Report on Form 10-K for the year ended December 31, 2014, filed with the Commission on March 31, 2015;
- (b) The Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the Commission on May 14, 2015;
- (c) The Registrant's Current Reports on Form 8-K filed with the Commission on February 26, 2015, April 1, 2015, April 8, 2015, April 28, 2015 and May 15, 2015; and
- (d) The description of the registrant's common stock contained in the registrant's Registration Statement on Form 8-A (File No. 001-36829), filed by the registrant with the SEC under Section 12(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), on February 2, 2015, including any amendments or reports filed for the purpose of updating such description.

All documents that the registrant subsequently files pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment to this registration statement which indicates that all of the shares of common stock offered have been sold or which deregisters all of such shares then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of the filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Under no circumstances will any information filed under current items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law permits a corporation to include in its charter documents, and in agreements between the corporation and its directors and officers, provisions expanding the scope of indemnification beyond that specifically provided by the current law.

The registrant's amended and restated by-laws provide for the indemnification of officers, directors and third parties acting on the registrant's behalf if such persons act in good faith and in a manner reasonably believed to be in and not opposed to the registrant's best interest, and, with respect to any criminal action or proceeding, such indemnified party had no reason to believe his or her conduct was unlawful.

The registrant has entered into or plans to enter into indemnification agreements with each of its directors and executive officers, in addition to the indemnification provisions provided for in its by-laws, and the registrant intends to enter into indemnification agreements with any new directors and executive officers in the future. These agreements provide for indemnification for all reasonable expenses and liabilities incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were agents of the registrant.

The registrant intends to purchase and maintain insurance on behalf of any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in that capacity, subject to certain exclusions and limits of the amount of coverage.

These indemnification provisions and the indemnification agreements entered into between the registrant and its officers and directors may be sufficiently broad to permit indemnification of the registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

Item 7. Exemption from Registration Claimed.

Not applicable.

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.

Item 9. Undertakings.

(a) The Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act.

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) herein do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act (15 U.S.C. 78m or 78o(d)) that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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 28th day of May 2015.

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>	May 28, 2015
<u>/s/ Dale Ritter</u> Dale Ritter	Vice President-Finance <i>(Principal Financial and Accounting Officer)</i>	May 28, 2015
<u>/s/ A.N. "Jerry" Karabelas, Ph.D.</u> A.N. "Jerry" Karabelas, Ph.D.	Director	May 28, 2015
<u>Ittai Harel</u>	Director	
<u>/s/ Paul G. Howes</u> Paul G. Howes	Director	May 28, 2015
<u>/s/ Devang V. Kantesaria, M.D.</u> Devang V. Kantesaria, M.D.	Director	May 28, 2015
<u>/s/ Isai Peimer</u> Isai Peimer	Director	May 28, 2015
<u>/s/ Martin Vogelbaum</u> Martin Vogelbaum	Director	May 28, 2015

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
3.1	Seventh 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)).
3.2	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)).
4.1	Specimen Common Stock Certificate of the registrant (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)).
5.1*	Opinion of Goodwin Procter LLP.
10.1	Amended and Restated 2004 Stock Option and Incentive Plan (Incorporated by reference to Exhibit 10.1 to the registrant's Registration Statement on Form S-1, as amended (File No. 333-199859)).
10.2	Amended and Restated 2014 Stock Option and Incentive Plan and forms of award agreements thereunder (Incorporated by reference to Exhibit 10.2 to the registrant's Annual Report on Form 10-K (File No. 001-36829)).
10.3	Inotek Pharmaceuticals Corporation 2014 Employee Stock Purchase Plan (Incorporated by reference to Exhibit 10.7 to the registrant's Annual Report on Form 10-K (File No. 001-36829)).
23.1*	Consent of McGladrey 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.

May 28, 2015

Inotek Pharmaceuticals Corporation
131 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 2,346,451 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 2004 Stock Option and Incentive Plan, Amended and Restated 2014 Stock Option and Incentive Plan, as amended, and Amended and Restated 2014 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 and other inquiries of officers of the Company.

The opinion set forth below is limited to the Delaware General Corporation Law (which includes reported judicial decisions interpreting 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 of Inotek Pharmaceuticals Corporation of our report dated March 31, 2015, relating to our audit of the financial statements, which appears in the Annual Report on Form 10-K of Inotek Pharmaceuticals Corporation for the year ended December 31, 2014.

/s/ McGladrey LLP

Boston, Massachusetts
May 28, 2015