Registration No. 333—

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

VERTEX PHARMACEUTICALS INCORPORATED

(Exact name of registrant as specified in its charter)

Massachusetts

(State or other jurisdiction of incorporation or organization)

04-3039129

(I.R.S. Employer Identification Number)

130 Waverly Street Cambridge, Massachusetts 02139 (617) 341-6100 (Address of Principal Executive Offices)

EMPLOYEE STOCK PURCHASE PLAN (Full Title of Plan)

Jeffrey M. Leiden Chief Executive Officer Vertex Pharmaceuticals Incorporated 130 Waverly Street Cambridge, Massachusetts 02139 (617) 341-6100

(Name, address, and telephone number, including area code, of agent for service)

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 definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer x

Accelerated filer o

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

CALCULATION OF REGISTRATION FEE

	Title of Each Class of Securities to be Registered	Amount to be Registered(2)		Proposed Maximum Offering Price Per Share(3)		Proposed Maximum Aggregate Offering Price		mount of stration Fee
Comm	on Stock, \$0.01 par value (1)	2,500,000	\$	44.07	\$	110,175,000	\$	15,028
(1)	The number of shares of common stock, par value \$.01 per share, stated above consists of the aggregate number of additional shares that may be issued under the Vertex Pharmaceuticals Incorporated Employee Stock Purchase Plan pursuant to an amendment to the plan that became effective on May 16, 2012. The maximum number of shares that may be issued under the plan is subject to adjustment in accordance with certain anti-dilution and other provisions of the plan. Accordingly, pursuant to Rule 416 under the Securities Act of 1933, as amended, this Registration Statement covers, in addition to the number of shares stated above, an indeterminate number of shares that may be subject to grant or otherwise issuable after							

the operation of any such anti-dilution or other provisions.

(2) Estimated solely for purposes of determining the registration fee pursuant to Rule 457(c) and (h) under the Securities Act of 1933, as amended, based on the average of the high and low sale prices of the Registrant's common stock as reported by The NASDAQ Global Select Market on November 2, 2012.

PART I INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.

The information required by Item 1 is included in documents sent or given to participants in the plan covered by this registration statement pursuant to Rule 428(b)(1) of the Securities Act of 1933, as amended (the "Securities Act").

Item 2. Registrant Information and Employee Plan Annual Information.

The written statement required by Item 2 is included in documents sent or given to participants in the plan covered by this registration statement pursuant to Rule 428(b)(1) of the Securities Act.

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed by the Registrant with the Commission are incorporated herein by reference:

- (a) Vertex Pharmaceuticals Incorporated's (the "Registrant's") Annual Report on Form 10-K for the fiscal year ended December 31, 2011 (filing date February 22, 2012).
- (b) The Registrant's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2012 (filing date May 10, 2012); June 30, 2012 (filing date August 8, 2012); and September 30, 2012 (filing date November 6, 2012).
- (c) All other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the document referred to in (a) above.
- (d) The description of the Registrant's common stock contained in the Registrant's Registration Statement on Form 8-A (filing date May 30, 1991), as amended from time to time.

All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a posteffective amendment that indicates that all securities offered hereby have been sold or that deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be 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 for the purposes of this registration statement to the extent that a statement contained herein or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

None.

Item 6. Indemnification of Directors and Officers.

Part D of Article 6 of the Articles of Organization of the Registrant provides that no director of the Registrant shall be personally liable to the Registrant or its shareholders for monetary damages for any breach of fiduciary duty as a director. Such paragraph provides further, however, that to the extent provided by applicable law it will not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the Registrant or its shareholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 61 or 62 of the Massachusetts Business Corporation Law, or (iv) for any transactions from which the director derived an improper personal benefit.

Article V of the Registrant's By-laws provides that the Registrant shall indemnify each of its directors and officers (including persons who serve at the Registrant's request as a director, officer, or trustee of another organization in which the Registrant has any

interest, direct or indirect, as a shareholder, creditor, or otherwise or who serve at the Registrant's request in any capacity with respect to any employee benefit plan) against all liabilities and expenses, including amounts paid in satisfaction of judgments, in compromise, or as fines and penalties, and counsel fees reasonably incurred by such director or officer in connection with the defense or disposition of any action, suit, or other proceeding, whether civil or criminal, in which such director or officer may be involved or with which such person may be threatened, while in office or thereafter, by reason of such person's being or having been such a director, officer, or trustee, except with respect to any matter as to which such director or officer shall have been adjudicated in any proceeding not to have acted in good faith in the reasonable belief that such director's or officer's action was in the best interest of the Registrant or, to the extent that such matter relates to service with respect to an employee benefit plan, in the best interest of the participants or beneficiaries of such employee benefit plan. As to any matter disposed of by a compromise payment by any such person, pursuant to a consent decree or otherwise, Article V of the Registrant's By-laws provides that no indemnification shall be provided to such person for such payment or for any other expenses unless such compromise has been approved as in the best interests of the Registrant, after notice that it involves such indemnification (i) by a disinterested majority of the directors then in office or (ii) by a majority of the disinterested directors then in office provided there has been obtained an opinion in writing of independent legal counsel to the effect that such director or officer appeared to have acted in good faith in the reasonable belief that such person's action as in the best interest of the Registrant, or (iii) by the holders of a majority of the outstanding stock at the time entitled to vote for directors, voting as a single class, exclusive of any stock owned by any interested director or officer.

Article V of the Registrant's By-laws provides that expenses, including counsel fees, reasonably incurred by any director or officer in connection with the defense or disposition of any such action, suit or other proceeding may be paid from time to time by the Registrant at the discretion of a majority of the disinterested directors then in office, in advance of the final disposition thereof, upon receipt of an undertaking by such director or officer to repay the Registrant the amounts so paid if it is ultimately determined that indemnification for such expenses is not authorized under Article V of the By-laws, which undertaking may be accepted by the Registrant without reference to the financial ability of such director or officer to make repayment.

Article V of the Registrant's By-laws gives the Board of Directors of the Registrant the power to authorize the purchase and maintenance of insurance, in such amounts as the Board of Directors may from time to time deem appropriate, on behalf of any person who is or was a director, officer, or agent of the Registrant, or who is or was serving at the request of the Registrant as a director, officer or agent of another organization in which the Registrant has any interest, direct or indirect, as a shareholder, creditor or otherwise, or with respect to any employee benefit plan, against any liability incurred by such person in any such capacity, or arising out of such person's status as such agent, whether or not such person is entitled to indemnification by the Registrant pursuant to Article V or otherwise and whether or not the Registrant would have the power to indemnify the person against such liability.

Subdivision E of Part 8 of the Massachusetts Business Corporation Act (the "MBCA") authorizes the provisions, described above, contained in Part D, Article 6 of the Articles of Organization of the Registrant.

Sections 8.30 and 8.42 of the MBCA provide that if an officer or director discharges his or her duties in good faith and with the care that a person in a like position would reasonably exercise under similar circumstances and in a manner the officer or director reasonably believes to be in the best interests of the corporation, he or she will not be liable for such actions.

Item 7. Exemption From Registration Claimed.

Not applicable

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Item 8. Exhibits.

Exhibit		Filed with this Registration	Incorporated by Reference herein from—Form	Filing Date/	SEC File/
Number	Exhibit Description	Statement	or Schedule	Period Covered	Reg. Number
4.1	Restated Articles of Organization of Vertex Pharmaceuticals		10-Q	August 11, 2008	000-19319
	Incorporated, as amended.		(Exhibit 3.1)		
4.2	By-laws of Vertex, as amended and restated as of May 11,		10-Q	August 9, 2005	000-19319
	2005.		(Exhibit 3.1)		
4.3	Specimen stock certificate.		S-1	July 18, 1991	33-40966
			(Exhibit 4.1)		
5.1	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo,	Х			
	P.C. as to the legality of the shares being registered.				
23.1	Consent of Ernst & Young LLP.	Х			
23.2	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo,	Х			
	P.C. (included as part of Exhibit 5.1).				
24.1	Power of Attorney to file future amendments (set forth on	Х			
	signature page of this Registration Statement).				
99.1	Vertex Pharmaceuticals Incorporated Employee Stock		10-Q	August 8, 2012	000-19319
	Purchase Plan, as amended.		(Exhibit 10.4)	-	

Item 9. Undertakings.

(a) The undersigned 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 of 1933;
 - (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:

(A) Paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the registration statement is on Form S-8, and 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 Securities Exchange Act of 1934 that are incorporated by reference in this Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, 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 of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in this 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.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 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 Act and will be governed by the final adjudication of such issue.

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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 Cambridge, Massachusetts on November 6, 2012.

VERTEX PHARMACEUTICALS INCORPORATED

By:

/s/ JEFFREY M. LEIDEN

Jeffrey M. Leiden Chief Executive Officer and President

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Jeffrey M. Leiden, Ian F. Smith and Kenneth L. Horton and each of them singly, his/her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them singly, for him/her and in his/her name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8 of Vertex Pharmaceuticals Incorporated, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting to the 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 or about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that the attorneys-in-fact and agents or any of each of them or their substitute 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	Title	Date
By:	/s/ JEFFREY M. LEIDEN Jeffrey M. Leiden	Chairman, Chief Executive Officer and President (principal executive officer)	November 6, 2012
By:	/s/ IAN F. SMITH Ian F. Smith	Executive Vice President and Chief Financial Officer (principal financial officer)	November 6, 2012
By:	/s/ PAUL M. SILVA Paul M. Silva	Senior Vice President and Corporate Controller (principal accounting officer)	November 6, 2012
By:	/s/ DAVID M. ALTSHULER	Director	November 6, 2012

	David M. Altshuler			
By:	/s/ JOSHUA S. BOGER Joshua S. Boger	Director		November 6, 2012
By:	/s/ MATTHEW W. EMMENS Matthew W. Emmens	Director		November 6, 2012
By:	/s/ TERRENCE C. KEARNEY Terrence C. Kearney	Director		November 6, 2012
By:	/s/ YUCHUN LEE Yuchun Lee	Director		November 6, 2012
By:	/s/ MARGARET G. MCGLYNN Margaret G. McGlynn	Director		November 6, 2012
By:	/s/ WAYNE J. RILEY Wayne J. Riley	Director		November 6, 2012
By:	/s/ BRUCE I. SACHS Bruce I. Sachs	Director		November 6, 2012
By:	/s/ ELAINE S. ULLIAN Elaine S. Ullian	Director		November 6, 2012
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VERTEX PHARMACEUTICALS INCORPORATED INDEX TO EXHIBITS FILED WITH FORM S-8 REGISTRATION STATEMENT

Exhibit Number	Exhibit Description	Filed with this Registration Statement	Incorporated by Reference herein from—Form or Schedule	Filing Date/ Period Covered	SEC File/ Reg. Number
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	Pharmaceuticals Incorporated, as amended.		(Exhibit 3.1)		
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5.1	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. as to the legality of the shares being registered.	Х			
23.1	Consent of Ernst & Young LLP.	Х			
23.2	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included as part of Exhibit 5.1).	Х			
24.1	Power of Attorney to file future amendments (set forth on signature page of this Registration Statement).	Х			
99.1	Vertex Pharmaceuticals Incorporated Employee Stock Purchase Plan, as amended.		10-Q (Exhibit 10.4)	August 8, 2012	000-19319
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MINTZ LEVIN LETTERHEAD

Vertex Pharmaceuticals Incorporated 130 Waverly Street Cambridge, Massachusetts 02139-4242

Ladies and Gentlemen:

We have acted as counsel to Vertex Pharmaceuticals Incorporated, a Massachusetts corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission of a Registration Statement on Form S-8 (the "Registration Statement"), pursuant to which the Company is registering the issuance under the Securities Act of 1933, as amended, of a total of 2,500,000 shares (the "Shares") of its common stock, \$.01 par value per share (the "Common Stock") that are being issued pursuant to the Employee Stock Purchase Plan (the "Plan"). This opinion is being rendered in connection with the filing of the Registration Statement. All capitalized terms used herein and not otherwise defined shall have the respective meanings given to them in the Registration Statement.

In connection with this opinion, we have examined the Company's Restated Articles of Organization, as amended, and By-Laws, as amended and restated, both as currently in effect; such other records of the corporate proceedings of the Company and certificates of the Company's officers as we have deemed relevant; and the Registration Statement and the exhibits thereto.

In our examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photostatic copies and the authenticity of the originals of such copies.

Based upon the foregoing, and subject to the limitation set forth below, we are of the opinion that (i) the Shares have been duly authorized by the Company and (ii) the Shares, when issued and sold in the manner described in the Plan, will be validly issued, fully paid and non-assessable shares of the Common Stock.

Our opinion is limited to the General Corporation Laws of The Commonwealth of Massachusetts and the reported judicial decisions interpreting those laws, and we express no opinion with respect to the laws of any other jurisdiction. No opinion is expressed herein with respect to the qualification of the Shares under the securities or blue sky laws of any state or any foreign jurisdiction.

We understand that you wish to file this opinion as an exhibit to the Registration Statement, and we hereby consent thereto.

Very truly yours,

/s/ Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

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 Employee Stock Purchase Plan of Vertex Pharmaceuticals Incorporated of our reports dated February 22, 2012, with respect to the consolidated financial statements of Vertex Pharmaceuticals Incorporated, and the effectiveness of internal control over financial reporting of Vertex Pharmaceuticals Incorporated included in its Annual Report (Form 10-K) for the year ended December 31, 2011, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts November 6, 2012