

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

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

IDERA PHARMACEUTICALS, INC.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)

04-3072298
(I.R.S. Employer
Identification No.)

505 Eagleview Blvd., Suite 212
Exton, Pennsylvania
(Address of principal executive offices)

19341
(Zip Code)

2017 EMPLOYEE STOCK PURCHASE PLAN
(Full title of the plan)

Vincent J. Milano
President and Chief Executive Officer
505 Eagleview Blvd., Suite 212
Exton, Pennsylvania 19341
(Name and address of agent for service)

(484) 348-1600
(Telephone number, including area code, of agent for service)

Copy to:
Justin W. Chairman, Esq.
Morgan, Lewis & Bockius LLP
1701 Market Street
Philadelphia, PA 19103
(215) 963-5000

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a 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.

Large accelerated filer	<input type="radio"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="radio"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input 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 7(a)(2)(B) of the Securities Act.

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 (2)	Amount of registration fee (3)
Common Stock, par value \$0.001 per share	350,000	\$ 2.60	\$ 910,000	\$ 110.30

(1) This registration statement covers shares of the common stock, par value \$.001 per share (the "Common Stock") of Idera Pharmaceuticals, Inc. that may be offered or sold pursuant to the 2017 Employee Stock Purchase Plan, as amended (the "Plan"). In addition, in accordance with Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall be deemed to cover an indeterminate amount of interests to be offered or sold pursuant to the employee benefit plan described herein.

(2) Estimated pursuant to Paragraphs (c) and (h) of Rule 457 under the Securities Act solely for the purpose of calculating the registration fee, based on the average of the high and low sales prices of shares of the Common Stock on July 8, 2019 as reported on the NASDAQ Capital Market.

EXPLANATORY NOTE

This Registration Statement is filed pursuant to General Instruction E to Form S-8 under the Securities Act, with respect to 350,000 additional shares of Common Stock that may be issued under the Plan. The contents of the following Registration Statement on Form S-8 of Idera Pharmaceuticals, Inc. (the "Registrant") relating to the Plan are incorporated herein by reference except as otherwise updated or modified by this filing: Registration Statement on [Form S-8 \(Registration No. 333-219740\), dated August 7, 2017](#).

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 by reference into this Registration Statement:

- (1) The Registrant's [Annual Report on Form 10-K for the fiscal year ended December 31, 2018](#);
- (2) The Registrant's [Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2019](#);
- (3) The Registrant's Current Reports on Form 8-K filed with the Commission on [January 9, 2019](#), [March 13, 2019](#), [April 10, 2019](#), [June 6, 2019](#) and [June 20, 2019](#) (solely with respect to Item 8.01 therein); and
- (4) The description of the Registrant's Common Stock Registration Statements on Form 8-A filed with the Commission on [December 4, 2003](#), as amended on [August 17, 2007](#) and [December 7, 2007](#).

All reports and other 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 post-effective amendment that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference to this Registration Statement and to be a part hereof from the date of the filing of such reports and documents. Any statement contained herein or in a document all or a portion of which is incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for 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 such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 8. Exhibits.

The Exhibit Index immediately preceding the exhibits is incorporated herein by reference.

IDERA PHARMACEUTICALS, INC.

INDEX TO EXHIBITS

<u>Exhibit</u>	<u>Description</u>
5.1*	Opinion of Morgan, Lewis & Bockius LLP.
23.1*	Consent of Independent Registered Public Accounting Firm.
23.2*	Consent of Morgan, Lewis & Bockius LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included as part of the signature page).
99.1	Idera Pharmaceuticals, Inc. 2017 Employee Stock Purchase Plan (Incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, filed on June 9, 2017).
99.2	Amendment to the Idera Pharmaceuticals, Inc. 2017 Employee Stock Purchase Plan (Incorporated herein by reference to Appendix C to the Company's Definitive Proxy Statement on Schedule 14A, filed on April 25, 2019).

* Filed herewith.

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 Exton, Commonwealth of Pennsylvania, on July 11, 2019.

IDERA PHARMACEUTICALS, INC.

By: /s/ Vincent J. Milano

Vincent J. Milano

President and Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of Idera Pharmaceuticals, Inc., hereby severally constitute and appoint Vincent J. Milano and John J. Kirby, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below, the registration statement on Form S-8 filed herewith and any and all subsequent amendments to said registration statement, and generally to do all such things in our names and on our behalf in our capacities as officers and directors to enable Idera Pharmaceuticals, Inc. to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said registration statement and any and all amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Vincent J. Milano</u> Vincent J. Milano	President, Chief Executive Officer and Director (Principal Executive Officer)	July 11, 2019
<u>/s/ John J. Kirby</u> John J. Kirby	Vice President of Finance (Principal Financial and Accounting Officer)	July 11, 2019
<u>/s/ James A. Geraghty</u> James A. Geraghty	Chairman of the Board of Directors	July 11, 2019
<u>/s/ Cristina Csimma</u> Cristina Csimma, PharmD, MHP	Director	July 11, 2019
<u>/s/ Michael R. Dougherty</u> Michael R. Dougherty	Director	July 11, 2019
<u>/s/ Mark Goldberg</u> Mark Goldberg, M.D.	Director	July 11, 2019
<u>/s/ Maxine Gowen</u> Maxine Gowen, Ph.D.	Director	July 11, 2019
<u>/s/ Howard Pien</u> Howard Pien	Director	July 11, 2019
<u>/s/ Carol A. Schafer</u> Carol A. Schafer	Director	July 11, 2019

Morgan Lewis

July 11, 2019

Idera Pharmaceuticals, Inc.
404 Eagleview Blvd., Suite 212
Exton, Pennsylvania 19341

Re: Idera Pharmaceuticals, Inc. Registration Statement on Form S-8 Filed on July 11, 2019

Ladies and Gentlemen:

We have acted as counsel to Idera Pharmaceuticals, a Delaware corporation (the “Company”), in connection with its filing of a Registration Statement on Form S-8 (the “Registration Statement”) under the Securities Act of 1933, as amended (the “Act”), with the Securities and Exchange Commission (the “SEC”) on the date hereof. The Registration Statement relates to the registration of 350,000 additional shares of common stock of the Company, par value \$0.001 per share (the “Common Stock”), that may be issued under the Idera Pharmaceuticals, Inc. 2017 Employee Stock Purchase Plan, as amended (the “2017 Plan”).

In connection with this opinion letter, we have examined the Registration Statement and originals, or copies certified or otherwise identified to our satisfaction, of (i) the Restated Certificate of Incorporation of the Company, as amended to date, (ii) the Amended and Restated By-Laws of the Company, (iii) certain resolutions of the Company’s Board of Directors relating to the Registration Statement, (iv) the 2017 Plan, and (v) such other documents, records and other instruments as we have deemed appropriate for purposes of the opinions set forth herein.

We have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of the documents submitted to us as originals, the conformity with the originals of all documents submitted to us as certified, facsimile or photostatic copies and the authenticity of the originals of all documents submitted to us as copies. With respect to matters of fact relevant to our opinions as set forth below, we have relied upon certificates of officers of the Company, representations made by the Company in documents examined by us, and representations of officers of the Company. We have also obtained and relied upon such certificates and assurances from public officials as we have deemed necessary for the purposes of our opinions set forth below.

Subject to the foregoing and the other matters set forth herein, we are of the opinion, as of the date hereof that the Common Stock has been duly authorized by the Company and, when issued by the Company in accordance with the provisions of the 2017 Plan, will be validly issued, fully paid, and non-assessable.

Morgan, Lewis & Bockius LLP

1701 Market Street
Philadelphia, PA 19103-2921
United States

+1.215.963.5000
+1.215.963.5001

We hereby consent to the use of this opinion as Exhibit 5.1 to the Registration Statement. In giving such consent, we do not hereby admit that we are acting within the category of persons whose consent is required under Section 7 of the Act or the rules or regulations of the SEC thereunder.

Very truly yours,

/s/ Morgan, Lewis & Bockius LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2017 Employee Stock Purchase Plan of Idera Pharmaceuticals, Inc. of our reports dated March 6, 2019, with respect to the financial statements of Idera Pharmaceuticals, Inc. and the effectiveness of internal control over financial reporting of Idera Pharmaceuticals, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2018, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Philadelphia, Pennsylvania
July 11, 2019
