

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM S-8**

**REGISTRATION STATEMENT UNDER  
THE SECURITIES ACT OF 1933**

**OvaScience, Inc.**

(Exact Name of Registrant as Specified in Its Charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**45-1472564**  
(I.R.S. Employer  
Identification No.)

**9 Fourth Street**  
**Waltham, MA**  
(Address of Principal Executive Offices)

**02451**  
(Zip Code)

**2012 Stock Incentive Plan**  
**Inducement Stock Option Award to James W. Lillie, Ph.D.**  
(Full Title of the Plan)

**Christopher A. Kroeger, M.D., M.B.A.**  
**President and Chief Executive Officer**

**OvaScience, Inc.**  
**9 Fourth Avenue**  
**Waltham, MA 02451**  
(Name and Address of Agent For Service)

**(617) 500-2802**  
(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 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

Smaller reporting company

(Do not check if a smaller reporting company)

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	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.001 par value per share	357,057 shares(1)	\$ 1.02(2)	\$ 364,198.14	\$ 45.34
Common Stock, \$0.001 par value per share	975,000 shares(3)	\$ 0.90(4)	\$ 877,500.00	\$ 109.25
<b>TOTAL:</b>			<b>\$</b>	<b>154.59</b>

- (1) Consists of shares of common stock, \$0.001 par value per share (the "Common Stock") of OvaScience, Inc. (the "Registrant") issuable upon exercise of a non-qualified stock option granted to James W. Lillie, Ph.D., Chief Scientific Officer of the Registrant, on March 6, 2018. In accordance with Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement also covers an indeterminate number of shares which may be subject to grant or otherwise issuable after the operation of certain anti-dilution and other provisions of the non-qualified option agreement between the Registrant and Dr. Lillie.
- (2) The offering price per share and the aggregate offering price are based on \$1.02, which is the per share exercise price of the option.
- (3) Consists of shares of Common Stock of the Registrant authorized for issuance for compensatory purposes only, as previously authorized under the 2012 Stock Incentive Plan (the "2012 Plan") as of January 1, 2018, in connection with an "evergreen" provision contained in the 2012 Plan.
- (4) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and 457(h) under the Securities Act. The price per share and aggregate offering price are calculated on the basis of the average of the high and low prices of the Registrant's Common Stock as reported on the Nasdaq Global Market on August 7, 2018.



**PART I**

**INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS**

This Registration Statement on Form S-8 is filed to register: (a) 975,000 shares of the Registrant's Common Stock issuable for compensatory purposes under the 2012 Plan, which were added to the shares authorized for issuance under the 2012 Plan as of January 1, 2018, pursuant to an "evergreen" provision; and (b) 357,057 shares of the Registrant's Common Stock issuable upon exercise of a non-qualified stock option granted to James W. Lillie, Ph.D., Chief Scientific Officer of the Registrant, pursuant to the terms of a Non-Qualified Stock Option Agreement by and between the Registrant and Dr. Lillie, dated as of March 6, 2018 (the "Lillie Option Agreement"), as an inducement material to his entering into employment with the Registrant.

In accordance with the instructional Note to Part I of Form S-8 as promulgated by the Securities and Exchange Commission (the "Commission"), the information specified by Part I of Form S-8 has been omitted from this Registration Statement on Form S-8 for offers of the Registrant's Common Stock pursuant to the 2012 Plan and the Lillie Option Agreement. The documents containing the information specified in Part I will be delivered to the participants in the 2012 Plan and to Dr. Lillie as required by Rule 428(b)(1) under 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:

- our Annual Report on Form 10-K for the year ended December 31, 2017 filed with the Commission on March 15, 2018 (File No. 001-35890);
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2018 and June 30, 2018, filed with the Commission on May 3, 2018 and August 9, 2018, respectively (File No. 001-35890);
- our Current Reports on Form 8-K filed with the Commission on January 3, 2018, February 1, 2018, May 3, 2018 and June 26, 2018 (File No. 001-35890) (except for the information furnished under Item 2.01 or 7.01 and the exhibits furnished thereto);
- the portions of the Registrant's Definitive Proxy Statement on Schedule 14A filed on April 30, 2017 that are deemed "filed" with the Commission under the Securities Exchange Act of 1934, as amended (the "Exchange Act") (File No. 001-35890); and
- the description of the Common Stock contained in the Registrant's Registration Statement on Form 8-A filed on April 25, 2013 (File No. 001-35890), including any amendments or reports filed for the purpose of updating that description.

All reports and other documents filed by the Registrant after the date hereof pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be part hereof from the date of filing of such reports and 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 which 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.

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. ("Mintz Levin") has opined as to the legality of the securities being offered by this registration statement.

#### Item 6. Indemnification of Directors and Officers.

##### *Delaware Law*

Section 102 of the General Corporation Law of the State of Delaware permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit.

Section 145 of the General Corporation Law of the State of Delaware provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, ending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

***Amended and Restated Certificate of Incorporation***

Our certificate of incorporation limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the Delaware General Corporation Law and provides that no director will have personal liability to us or to our stockholders for monetary damages for breach of fiduciary duty or other duty as a director. However, these provisions do not eliminate or limit the liability of any of our directors for:

- any breach of the director's duty of loyalty to us or our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- voting for or assenting to unlawful payments of dividends, stock repurchases or other distributions; or
- any transaction from which the director derived an improper personal benefit.

In addition, our certificate of incorporation provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, other than an action by or in the right of us, by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

Our certificate of incorporation also provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses, including attorneys' fees, and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses, including attorneys' fees, actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

### **Indemnification Agreements**

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements may require us, among other things, to indemnify our directors and officers for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

### **Item 7. Exemption from Registration Claimed.**

Not applicable.

### **Item 8. Exhibits.**

The following exhibits are filed as part of this Registration Statement:

<b>Number</b>	<b>Description</b>
5.1	<a href="#">Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel to the Registrant</a>
23.1	<a href="#">Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in Exhibit 5.1)</a>
23.2	<a href="#">Consent of Ernst &amp; Young LLP</a>
24.1	<a href="#">Power of attorney (included on the signature pages of this registration statement)</a>
99.1	<a href="#">2012 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.5 of the Registrant's Registration Statement on Form 10 filed on April 11, 2012 (File No. 000-54647))</a>
99.2	<a href="#">Non-Qualified Stock Option Agreement by and between the Registrant and James W. Lillie, Ph.D., dated as of March 6, 2018 (incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on May 3, 2018 (File No. 001-35890))</a>

### **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 this 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 20 percent 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) of this section 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 Securities Exchange Act of 1934 that are incorporated by reference in the 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; and
- (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 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.
- (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 such 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 such Act and will be governed by the final adjudication of such issue.

## 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 Waltham, Commonwealth of Massachusetts, on this 9th day of August, 2018.

OVASCIENCE, INC.

By: /s/ Christopher A. Kroeger, M.D., M.B.A.  
Christopher A. Kroeger, M.D., M.B.A.  
President and Chief Executive Officer

## SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of OvaScience, Inc., hereby severally constitute and appoint Christopher A. Kroeger, M.D., M.B.A. and Jonathan Gillis, 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 OvaScience, 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, 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/ Christopher A. Kroeger, M.D., M.B.A.</u> Christopher A. Kroeger, M.D., M.B.A.	President and Chief Executive Officer (principal executive officer)	August 9, 2018
<u>/s/ Jonathan Gillis</u> Jonathan Gillis	Senior Vice President, Finance (principal financial officer)	August 9, 2018
<u>/s/ Jeffrey D. Capello</u> Jeffrey D. Capello	Director	August 9, 2018
<u>/s/ Richard Aldrich</u> Richard Aldrich	Director	August 9, 2018
<u>/s/ Mary Fisher</u> Mary Fisher	Director	August 9, 2018
<u>/s/ John P. Howe, III, M.D.</u> John P. Howe, III, M.D.	Director	August 9, 2018

/s/ Marc Kozin  
Marc Kozin

Director

August 9, 2018

/s/ John Sexton, Ph.D.  
John Sexton, Ph.D.

Director

August 9, 2018

MINTZ LEVIN

One Financial Center  
Boston, MA 02111  
617-542-6000  
617-542-2241 fax  
www.mintz.com

August 9, 2018

OvaScience, Inc.  
9 Fourth Avenue  
Waltham, MA 02451

Ladies and Gentlemen:

We have acted as legal counsel to OvaScience, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "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 (the "Securities Act"), of 1,332,057 shares (the "Shares") of the Company's common stock, \$0.001 par value per share (the "Common Stock"), including (a) 975,000 shares of Common Stock that may be issued pursuant to the Company's 2012 Stock Incentive Plan (the "2012 Plan"), and (b) 357,057 shares of Common Stock that may be issued upon the exercise of a non-qualified stock option granted to James W. Lillie, Ph.D. as an inducement material to his entering into employment with the Company (the "Lillie Option Agreement"). This opinion is being rendered in connection with the filing of the Registration Statement with the Commission. 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 Certificate of Incorporation and the Company's Second Amended and Restated By-laws, each as currently in effect; the Lillie Option Agreement; 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. In addition, we have assumed that the Company will receive any required consideration in accordance with the terms of the 2012 Plan and the Lillie Option Agreement.

Our opinion is limited to the General Corporation Law of the State of Delaware 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.

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

BOSTON | LONDON | LOS ANGELES | NEW YORK | SAN DIEGO | SAN FRANCISCO | STAMFORD | WASHINGTON

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Based upon the foregoing, we are of the opinion that the Shares, when issued and delivered in accordance with the terms of the 2012 Plan or the Lillie Option Agreement, as applicable, will be validly issued, fully paid and non-assessable.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is based upon currently existing statutes, rules, regulations and judicial decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

We understand that you wish to file this opinion with the Commission as an exhibit to the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K promulgated under the Securities Act, and we hereby consent thereto. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

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 (Form S-8) pertaining to the 2012 Stock Incentive Plan and the Inducement Stock Option Award to James W. Lillie, Ph.D. of our reports dated March 15, 2018, with respect to the consolidated financial statements of OvaScience, Inc. and the effectiveness of internal control over financial reporting of OvaScience, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2017, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts  
August 9, 2018

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