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

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of
the Securities Exchange Act of 1934 (Amendment No.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material under §240.14a-12

OvaScience, Inc.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
- (1) Title of each class of securities to which transaction applies: _____
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Fee paid previously with preliminary materials.

Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

- (1) Amount Previously Paid: _____
- (2) Form, Schedule or Registration Statement No.: _____
- (3) Filing Party: _____
- (4) Date Filed: _____
- _____

OVASCIENCE, INC.
9 Fourth Avenue
Waltham, Massachusetts 02451

To our Stockholders:

You are cordially invited to attend our 2018 Annual Meeting of Stockholders. Our Annual Meeting will be held at the Westin Waltham Boston Hotel, 70 Third Avenue, Waltham, Massachusetts 02451, on Tuesday, June 26, 2018, at 9:00 a.m., local time. The attached Notice of Annual Meeting of Stockholders and proxy statement contain details of the business to be conducted at our Annual Meeting. We urge you to review these proxy materials carefully and to use this opportunity to take part in the affairs of OvaScience, Inc. by voting on the matters described in the proxy statement.

We have elected to provide our proxy materials over the Internet under the Securities and Exchange Commission's "notice and access" rules. Providing our proxy materials to stockholders electronically allows us to conserve natural resources and reduce our printing and mailing costs related to the distribution of the proxy materials. If you wish to receive paper copies of the proxy materials, you may do so by following the instructions contained in this proxy statement. The proxy statement also provides instructions on how to vote online or by telephone and includes instructions on how to receive a paper copy of the proxy materials by mail.

Your vote is important. Whether or not you plan to attend the Annual Meeting, we hope you will vote as soon as possible. You may vote over the Internet, as well as by telephone, or, if you received printed proxy materials, by mailing a proxy or voting instruction card. Please review the instructions on each of your voting options described in this proxy statement, as well as in the Notice of Annual Meeting of Stockholders.

Thank you for your support of OvaScience, Inc. We look forward to seeing you at our Annual Meeting.

/s/ Christopher Kroeger
Christopher Kroeger, M.D., M.B.A.
Chief Executive Officer

OVASCIENCE, INC.

**9 Fourth Avenue
Waltham, Massachusetts 02451**

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
to be held on Tuesday, June 26, 2018**

To our Stockholders:

NOTICE IS HEREBY GIVEN that the Annual Meeting of Stockholders (the "Annual Meeting") of OvaScience, Inc., a Delaware corporation ("OvaScience" or the "Company"), will be held at the Westin Waltham Boston Hotel, 70 Third Avenue, Waltham, Massachusetts 02451, on Tuesday, June 26, 2018, at 9:00 a.m., local time, to consider and act upon the following matters:

1. To elect two class III directors nominated by our Board of directors, each for a three-year term expiring at the 2021 annual meeting of stockholders;
2. To ratify the appointment of Ernst & Young LLP, an independent registered public accounting firm, as our independent auditors for the fiscal year ending December 31, 2018;
3. To approve by an advisory vote the compensation of our named executive officers, as disclosed in this proxy statement;
4. To approve the 2018 Non-Employee Director Compensation Policy; and
5. To transact such other business as may properly come before the Annual Meeting or any adjournment or postponement thereof.

Stockholders of record at the close of business on April 27, 2018, the record date for the Annual Meeting, are entitled to notice of, and to vote at, the Annual Meeting or any adjournment thereof. Your vote is important regardless of the number of shares you own. If you are a stockholder of record, please vote in one of these ways:

- (1) *Vote over the Internet.* You may vote your shares by following the "Vote by Internet" instructions on the enclosed proxy card or on your Notice of Internet Availability of Proxy Materials.
- (2) *Vote by telephone.* You may vote your shares by following the "Vote by Phone" instructions on the enclosed proxy card.
- (3) *Vote by mail.* If you received your proxy materials by mail, you may vote by completing and signing the proxy card delivered with those materials and returning it in the postage-paid envelope we provided.

If your shares are held in "street name," that is, held for your account by a broker or other nominee, you will receive instructions from the holder of record that you must follow for your shares to be voted.

We encourage all stockholders to attend the Annual Meeting in person. You may obtain directions to the location of the Annual Meeting on our website at www.ovascience.com. Whether or not you plan to attend the Annual Meeting in person, we urge you to take the time to vote your shares.

By Order of the Board of Directors,

/s/ Christopher Kroeger
Christopher Kroeger, M.D., M.B.A.
Corporate Secretary

Waltham, Massachusetts
April 30, 2018

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OVASCIENCE, INC.
9 Fourth Avenue
Waltham, MA 02142

PROXY STATEMENT

FOR THE 2018 ANNUAL MEETING OF STOCKHOLDERS
to be held on Tuesday, June 26, 2018

This proxy statement and the enclosed proxy card are being furnished in connection with the solicitation of proxies by the Board of OvaScience, Inc., or the Board, for use at the 2018 Annual Meeting of Stockholders to be held on Tuesday, June 26, 2018 at the Westin Waltham Boston Hotel, 70 Third Avenue, Waltham, Massachusetts 02451, at 9:00 a.m., local time, and at any adjournment or postponement thereof.

All proxies will be voted in accordance with the instructions contained in those proxies. If no choice is specified, the proxies will be voted in favor of the matters set forth in the accompanying Notice of Annual Meeting of Stockholders.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS
For the Annual Meeting of Stockholders to be Held on Tuesday, June 26, 2018:

The proxy materials, which include our proxy statement for the Annual Meeting and our 2017 Annual Report, which includes our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, are available for viewing, printing and downloading at www.proxyvote.com.

A copy of our proxy materials will be furnished without charge to any stockholder upon oral or written request to OvaScience, Inc., 9 Fourth Avenue, Waltham, Massachusetts 02451, Attention: Investor Relations, Telephone: (617) 500-2802 or pursuant to the instructions included in this proxy statement.

This proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 are also available on the Securities and Exchange Commission's website at www.sec.gov, or on the SEC filings page of the Investors section of our website, ir.ovascience.com.

IMPORTANT INFORMATION ABOUT THE ANNUAL MEETING AND VOTING

- Q. Why did I receive these proxy materials?** A. We are providing these proxy materials to you in connection with the solicitation by our Board of proxies to be voted at our Annual Meeting, to be held at the Westin Waltham Boston Hotel, 70 Third Avenue, Waltham, Massachusetts 02451, on Tuesday, June 26, 2018 at 9:00 a.m., local time. As a stockholder of OvaScience, you are invited to attend our Annual Meeting and are entitled and requested to vote on the proposals described in this proxy statement.
- Q. What is included in the proxy materials?** A. The proxy materials include our proxy statement for the Annual Meeting, our 2017 annual report, which includes our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, and, if you received a paper copy of these materials, a proxy card or voting instruction card. If you received a Notice of Internet Availability of Proxy Materials, please see "Why did I receive a Notice of Internet Availability of Proxy Materials instead of a paper copy of the proxy materials?" below.

- Q. Why did I receive a Notice of Internet Availability of Proxy Materials instead of a paper copy of the proxy materials?**
- A.** In accordance with rules adopted by the SEC, we may furnish proxy materials, including this proxy statement and our 2018 annual report to stockholders, to our stockholders by providing access to such documents on the Internet instead of mailing printed copies. Most stockholders will not receive printed copies of the proxy materials unless they request them. Instead, the Notice of Internet Availability of Proxy Materials, which will be mailed to our stockholders commencing on or about May 4, 2018, will instruct you as to how you may access and review all of the proxy materials on the Internet. The Notice of Internet Availability of Proxy Materials also instructs you as to how you may submit your proxy on the Internet. If you would like to receive a paper copy of our proxy materials, you should follow the instructions for requesting such materials in the Notice of Internet Availability of Proxy Materials.
- Q. Who can vote at the Annual Meeting?**
- A.** To be entitled to vote, you must have been a stockholder of record at the close of business on April 27, 2018, the record date for our Annual Meeting. The holders of 35,758,907 shares of our common stock outstanding as of the record date are entitled to vote at the Annual Meeting.
- If you were a stockholder of record on April 27, 2018, you are entitled to vote all of the shares that you held on that date at the Annual Meeting and at any postponement or adjournment thereof.
- Q. What are the voting rights of the holders of common stock?**
- A.** Each outstanding share of our common stock will be entitled to one vote on each matter considered at the Annual Meeting.
- Q. How do I vote?**
- A. If your shares are registered directly in your name, you may vote:**
- (1) **Over the Internet:** Go to the website of our tabulator, Broadridge Financial Solutions, Inc., at www.proxyvote.com. Have your proxy card in hand when you access the website and follow the instructions to obtain your records and to create an electronic voting instruction form. You must specify how you want your shares voted or your Internet vote cannot be completed and you will receive an error message. Your shares will be voted according to your instructions. You must submit your Internet proxy before 11:59 p.m., Eastern Time, on Monday, June 25, 2018, the day before the Annual Meeting, for your proxy to be valid and your vote to count.

- (2) **By Telephone:** Call 1-800-690-6903, toll free from the United States, Canada and Puerto Rico, and follow the recorded instructions. You must specify how you want your shares voted and confirm your vote at the end of the call or your telephone vote cannot be completed. Your shares will be voted according to your instructions. You must submit your telephonic proxy before 11:59 p.m., Eastern Time, on Monday, June 25, 2018, the day before the Annual Meeting, for your proxy to be valid and your vote to count.
- (3) **By Mail:** If you received your proxy materials by mail, complete and sign your proxy card and mail it to Broadridge in the postage prepaid envelope we provided. Broadridge must receive the proxy card not later than Monday, June 25, 2018, the day before the Annual Meeting, for your proxy to be valid and your vote to count. Your shares will be voted according to your instructions. If you do not specify how you want your shares voted, the persons named as proxies will follow our Board's recommendations and vote your shares:
- "FOR" the election of all director nominees;
 - "FOR" the ratification of the appointment of Ernst & Young LLP as our independent auditors for the fiscal year ending December 31, 2018;
 - "FOR" the approval of the compensation of our Named Executive Officers (as defined herein);
 - "FOR" the approval of the 2018 Non-Employee Director Compensation Policy; and
 - On any other matters properly brought before the Annual Meeting, in accordance with the best judgment of the named proxies.
- (4) **In Person at the Meeting:** If you attend the Annual Meeting, you may deliver your completed proxy card in person or you may vote by completing a ballot, which we will provide to you at the meeting.

If your shares are held in "street name," meaning they are held for your account by a bank, broker or other nominee, you may vote:

- (1) **Over the Internet or by Telephone:** You will receive instructions from your bank, broker or other nominee if they permit Internet or telephone voting. You should follow those instructions.
- (2) **By Mail:** You will receive instructions from your bank, broker or other nominee explaining how you can vote your shares by mail. You should follow those instructions.

- (3) **In Person at the Meeting:** Contact your bank, broker or other nominee who holds your shares to obtain a broker's proxy card and bring it with you to the Annual Meeting. A broker's proxy is not the form of proxy enclosed with this proxy statement. **You will not be able to vote shares you hold in street name in person at the Annual Meeting unless you have a proxy from your bank, broker or other nominee issued in your name giving you the right to vote your shares.**

Q. Can I change my vote?

A. If your shares are registered directly in your name, you may revoke your proxy and change your vote at any time before the Annual Meeting. To do so, you must do one of the following:

- (1) Vote over the Internet or by telephone as instructed above. Only your latest Internet or telephone vote is counted. You may not change your vote over the Internet or by telephone after 11:59 p.m., Eastern Time, on Monday, June 25, 2018.
- (2) Sign a new proxy and submit it as instructed above. Only your latest dated proxy, received by Broadridge not later than Monday, June 25, 2018, will be counted.
- (3) Attend the Annual Meeting, request that your proxy be revoked and vote in person as instructed above. Attending the Annual Meeting will not revoke your Internet vote, telephone vote or proxy, as the case may be, unless you specifically request it.

If your shares are held in street name, you may submit new voting instructions by contacting your bank, broker or other nominee. You may also vote in person at the Annual Meeting if you obtain a broker's proxy as described in the answer above.

Q. Will my shares be voted if I do not return my proxy?

A. If your shares are registered directly in your name, your shares will not be voted if you do not vote over the Internet, by telephone, by returning your proxy or by ballot at the Annual Meeting.

If your shares are held in street name, your bank, broker or other nominee may, under certain circumstances, vote your shares if you do not timely return your proxy. Banks, brokers or other nominees can vote their customers' unvoted shares on discretionary matters but cannot vote such shares on non-discretionary matters. If you do not timely return a proxy to your bank, broker or other nominee to vote your shares, your bank, broker or other nominee may, on discretionary matters, either vote your shares or leave your shares unvoted. **Your bank, broker or other nominee cannot vote your shares on any non-discretionary matter.**

The election of directors (Proposal 1), the advisory vote on the compensation of Named Executive Officers (Proposal 3), and the vote on the 2018 Non-Employee Director Compensation Policy (Proposal 4) are non-discretionary matters. The ratification of the appointment of our independent auditors (Proposal 2) is a discretionary matter. We encourage you to provide voting instructions to your bank, broker or other nominee by giving your proxy to them. This ensures that your shares will be voted at the Annual Meeting according to your instructions. You should receive directions from your bank, broker or other nominee about how to submit your proxy to them at the time you receive this proxy statement.

Q. How many shares must be present to hold the Annual Meeting?

A. A majority of our outstanding shares of common stock entitled to vote must be present to hold the Annual Meeting and conduct business. This is called a quorum. For purposes of determining whether a quorum exists, we count as present any shares that are voted over the Internet, by telephone, by completing and submitting a proxy or that are represented in person at the meeting. Further, for purposes of establishing a quorum, we will count as present shares that a stockholder holds even if the stockholder votes to abstain or only votes on one of the proposals. In addition, we will count as present shares held in street name by banks, brokers or nominees who indicate on their proxies that they do not have authority to vote those shares on Proposals 1, 3 and 4. If a quorum is not present, we expect to adjourn the Annual Meeting until we obtain a quorum.

Q. What vote is required to approve each matter and how are votes counted?

A. **Proposal 1—Election of Class III Directors** The two nominees for director receiving the highest number of votes FOR election will be elected as directors. This is called a plurality. **Proposal 1 is a non-discretionary matter.** Therefore, if your shares are held by your bank, broker or other nominee in street name and you do not vote your shares, your bank, broker or other nominee cannot vote your shares on Proposal 1. Shares held in street name by banks, brokers or nominees who indicate on their proxies that they do not have authority to vote the shares on Proposal 1 will not be counted as votes FOR or WITHHELD from any nominee and will be treated as "broker non-votes." As a result, broker non-votes will have no effect on the voting on Proposal 1. With respect to Proposal 1, you may:

- vote FOR both nominees;
- vote FOR one nominee and WITHHOLD your vote from the other nominee;
or
- WITHHOLD your vote from both nominees.

Votes that are withheld will not be included in the vote tally for the election of directors and will not affect the results of the vote.

Proposal 2—Ratification of Appointment of Independent Auditors

To approve Proposal 2, stockholders holding a majority of the votes cast affirmatively or negatively on the matter must vote FOR the proposal.

Proposal 2 is a discretionary matter. If your shares are held by your bank, broker or other nominee in street name and you do not vote your shares, your bank, broker or other nominee may vote your unvoted shares on Proposal 2. If you vote to ABSTAIN on Proposal 2, your shares will not be voted FOR or AGAINST the proposal and will also not be counted as votes cast or shares voting on the proposal. As a result, voting to ABSTAIN will have no effect on the voting on Proposal 2.

Although stockholder approval of our Audit Committee's appointment of Ernst & Young LLP as our independent auditors for the year ending December 31, 2018 is not required, we believe that it is advisable to give stockholders an opportunity to ratify this appointment. If this proposal is not approved at the Annual Meeting, our Audit Committee may reconsider its appointment of Ernst & Young LLP as our independent auditors for the year ending December 31, 2018.

Proposal 3—Advisory Vote to approve the Compensation of Named Executive Officers

To approve Proposal 3, stockholders holding a majority of the votes cast affirmatively or negatively on the matter must vote FOR the proposal.

Proposal 3 is a non-discretionary matter. Therefore, if your shares are held by your bank, broker or other nominee in street name and you do not vote your shares, your bank, broker or other nominee cannot vote your shares on Proposal 3. Shares held in street name by banks, brokers or nominees who indicate on their proxies that they do not have authority to vote the shares on Proposal 3 will not be counted as votes FOR or AGAINST the proposal and will be treated as "broker non-votes." As a result, broker non-votes and voting to ABSTAIN will have no effect on the voting on Proposal 3. Although the advisory vote is non-binding, the Compensation Committee and the Board will review the voting results and take them into consideration when making future decisions regarding executive compensation.

Proposal 4—Approval of the 2018 Non-Employee Director Compensation Policy

To approve Proposal 4, stockholders holding a majority of the votes cast affirmatively or negatively on the matter must vote FOR the proposal. **Proposal 4 is a non-discretionary matter.** Therefore, if your shares are held by your bank, broker or other nominee in street name and you do not vote your shares, your bank, broker or other nominee cannot vote your shares on Proposal 4. Shares held in street name by banks, brokers or nominees who indicate on their proxies that they do not have authority to vote the shares on Proposal 4 will not be counted as votes FOR or AGAINST the proposal and will be treated as "broker non-votes." As a result, broker non-votes and voting to ABSTAIN will have no effect on the voting on Proposal 4.

- | | |
|---|---|
| Q. Are there other matters to be voted on at the Annual Meeting? | A. We do not know of any matters that may come before the Annual Meeting other than the above described Proposals 1 through 4. If any other matters are properly presented at the Annual Meeting, the persons named in the accompanying proxy intend to vote, or otherwise act, in accordance with their judgment on the matter. |
| Q. Where can I find the voting results? | A. We will report the voting results in a Current Report on Form 8-K within four business days following the adjournment of our Annual Meeting. |
| Q. What are the costs of soliciting these proxies? | A. We will bear the cost of soliciting proxies. In addition to these proxy materials, our directors, officers and employees may solicit proxies by telephone, e-mail, facsimile and in person, without additional compensation. We have also engaged the Proxy Advisory Group, LLC to assist the solicitation of proxies and provide related advice and informational support. We may reimburse brokers or persons holding stock in their names, or in the names of their nominees, for their expenses in sending proxies and proxy material to beneficial owners. |

Householding of Annual Meeting Materials

Some banks, brokers and other nominee record holders may be participating in the practice of "householding" proxy statements and annual reports. This means that only one copy of our proxy statement and annual report to stockholders may have been sent to multiple stockholders in your household. We will promptly deliver a separate copy of either document to you upon written or oral request to OvaScience, Inc., 9 Fourth Avenue, Waltham, Massachusetts 02451, Attention: Investor Relations, Telephone: (617) 500-2802. If you want to receive separate copies of the proxy statement or annual report to stockholders in the future, or if you are receiving multiple copies and would like to receive only one copy per household, you should contact your bank, broker or other nominee record holder, or you may contact us at the above address and phone number.

Expenses and Solicitation

The cost of solicitation of proxies will be borne by us, and in addition to soliciting stockholders by mail through our regular employees, we may request banks, brokers, and other custodians, nominees and fiduciaries to solicit their customers who have stock of our Company registered in the names of a

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nominee and, if so, we will reimburse such banks, brokers, and other custodians, nominees and fiduciaries for their reasonable out-of-pocket costs. Solicitation by our officers and employees may also be made of some stockholders in person or by mail, telephone, e-mail, or other form of electronic communication following the original solicitation. We have engaged The Proxy Advisory Group, LLC to assist in the solicitation of proxies and provide related advice and informational support, for a services fee and the reimbursement of customary disbursements that are not expected to exceed \$15,000 in the aggregate.

CORPORATE GOVERNANCE

General

We believe that good corporate governance is important to ensure that OvaScience is managed for the long-term benefit of our stockholders. This section describes key corporate governance guidelines and practices that we have adopted.

We have adopted a written Code of Business Conduct and Ethics, which applies to all of our officers, directors and employees. We have also adopted charters for our Audit Committee, our Compensation Committee and our Nominating and Corporate Governance Committee, and Corporate Governance Guidelines. We have posted copies of our Code of Business Conduct and Ethics, Corporate Governance Guidelines and committee charters on the Corporate Governance page of the Investors section of our website, *ir.ovascience.com*, which you can access free of charge. We intend to disclose on our website any amendments to, or waivers from, our Code of Business Conduct and Ethics required to be disclosed by law or by the rules of The Nasdaq Stock Market.

Our Board of Directors

Members of the Board of Directors

Set forth below for each director, including the class III director nominees, is information as of April 1, 2018 with respect to his or her (a) name and age, (b) positions and offices at OvaScience, if any, (c) principal occupation and business experience for the past five years, (d) directorships, if any, of other publicly-held companies during the past five years, and (e) the year such person became a member of our Board. We have also included information below regarding each director's specific experience, qualifications, attributes and skills that led our Board to conclude that he or she should serve as a director. In addition, we believe that all of our directors and nominees possess the attributes or characteristics described in "Board Processes—Director Nomination Process" on page 17 that we expect of each director.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Christopher Kroeger, M.D., M.B.A.	50	Chief Executive Officer and Director
Richard Aldrich(3)	63	Independent Lead Director
Jeffrey D. Capello(1)	53	Director
Mary Fisher(2)	56	Director
Marc Kozin(1)(3)(4)	56	Director
John Sexton, Ph.D.(4)	75	Director
John Howe, III, M.D.(1)(2)(4)	75	Director

- (1) Member of the Audit Committee
- (2) Member of the Compensation Committee
- (3) Member of the Nominating and Corporate Governance Committee
- (4) Member of the Global Strategy Committee

Christopher Kroeger, M.D., M.B.A. joined OvaScience as Chief Executive Officer, and joined our Board, in September 2017. He brings more than 20 years of experience leading, building and advising development-stage therapeutic and medical device companies, as well as the expertise of a physician and scientist. Most recently, beginning in 2008, he served as Chief Executive Officer of Cardioxyl Pharmaceuticals. In this role, Dr. Kroeger led a team produced three investigational new drug candidates and successfully executed six Phase 1 and Phase 2 clinical studies, culminating in the sale of the company to Bristol Myers Squibb. Prior to his position at Cardioxyl, beginning in 2003, he led

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investing efforts as a Partner at The Aurora Funds, a venture capital firm focused on early-stage biotechnology and medical device companies. Earlier in his career, he held positions at Genzyme in 2002 and Decision Resources beginning in 1990. Dr. Kroeger earned his B.A. from Harvard University and his M.D. from Stanford University School of Medicine. He completed his Residency in General Surgery at the Brigham and Women's Hospital, an affiliate of Harvard Medical School. Dr. Kroeger also holds his M.B.A. from Harvard Business School. He currently serves on the board of directors of CardioFocus, Inc. and Cantex Pharmaceuticals, Inc. We believe that Dr. Kroeger is qualified to serve on our Board due to his executive experience and his extensive experience in leadership roles for other companies in the life science industry.

Richard Aldrich co-founded our Company in a non-operational role in April 2011. He has served as a member of our Board since July 2011 and served as the Chairman of our Board from March 2012 until January 2016. In March 2016, Mr. Aldrich was appointed as Independent Lead Director of the Board by the independent directors. Mr. Aldrich is a co-founder and partner of Longwood Fund, LP, a venture capital investment fund. He has co-founded and helped to build several successful biotech companies including Sirtris Pharmaceuticals, Inc. (acquired by GlaxoSmithKline in 2008); Concert Pharmaceuticals, Inc., where he serves as chairman of the board; Alnara Pharmaceuticals, Inc. (acquired by Eli Lilly in 2010); Verastem, Inc.; and Flex Pharma, Inc. Mr. Aldrich serves on the board of Renovia, Axial Biotherapeutics and Sitryx. Mr. Aldrich previously served on the board of directors of PTC Therapeutics, Inc. from March 2013 until June 2015, Colorescience, Inc., and Mitobridge, Inc. Prior to co-founding Longwood, he was General Partner of RA Capital, a biotechnology investment fund he co-founded in 2001. Mr. Aldrich was also a founding employee of Vertex Pharmaceuticals, Inc., where he held the position of Senior Vice President and Chief Business Officer and managed all commercial and operating functions from 1989 to 2001. Prior to joining Vertex, Mr. Aldrich held several management positions at Biogen, Inc. Mr. Aldrich earned his B.A. from Boston College and an M.B.A. from the Amos Tuck School at Dartmouth College. We believe that Mr. Aldrich is qualified to serve on our Board due to his experience in the life sciences industry as an entrepreneur and venture capitalist and his service on the boards of directors of other life sciences companies.

Jeffrey D. Capello has served as a member of our Board since March 2012. Mr. Capello is the Executive Vice President and Chief Financial Officer for Biogen, Inc. where he started in December 2017. Mr. Capello also served as the Executive Vice President and Chief Financial Officer of Beacon Health Options from September 2016 to December 2017. Mr. Capello was the Chief Executive Officer and founder of Monomoy Advisors, which focuses on helping companies drive shareholder value. From July 2014 to May 2015, Mr. Capello served as the Chief Financial Officer of Ortho-Clinical Diagnostics, which was acquired by the Carlyle Group from Johnson & Johnson, with responsibility for global finance and business development. Prior to his role at Ortho-Clinical Diagnostics, Mr. Capello served as Chief Financial Officer and Executive Vice President of Boston Scientific from March 2010 to March 2014. At Boston Scientific, Mr. Capello was responsible for the worldwide management of Boston Scientific's finance, information systems, business development and corporate strategy functions. Mr. Capello joined Boston Scientific in June 2008 and served as Senior Vice President and Chief Accounting Officer until March 2010. Prior to joining Boston Scientific, he was the Senior Vice President and Chief Financial Officer with responsibilities for global finance and business development at PerkinElmer, Inc. from 2006 to 2008. Prior to that, he served as PerkinElmer's vice president of finance, corporate controller and treasurer from 2002 to 2006 and vice president, finance, corporate controller, chief accounting officer and treasurer from 2001 to 2005. Prior to his tenure at PerkinElmer, Mr. Capello was a Partner at PricewaterhouseCoopers LLP, both in the United States and in the Netherlands. Mr. Capello is a board member of Flex Pharma, Inc., a biotechnology company developing treatments for symptoms associated with neuromuscular conditions. Previously, Mr. Capello was a member of the board of Sirtris Pharmaceuticals, Inc., which was acquired by GlaxoSmithKline in 2008, and served as both a member and the Chair of its audit committee. Mr. Capello holds a B.S. degree in business administration from the University of Vermont and an M.B.A. from Harvard

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Business School. Mr. Capello is also a certified public accountant. We believe that Mr. Capello is qualified to serve on our Board due to his experience in the medical device and healthcare technology industries, his accounting background and his service on the boards of directors of other life sciences companies.

Mary Fisher has served as a member of our Board since June 2013. Ms. Fisher also serves as Chief Executive Officer and Director at Colorescience, Inc., a former division of SkinMedica, Inc., where she served as Chief Executive Officer from April 2008 to December 2012, when she led the sale of the company to Allergan, Inc. Prior to joining SkinMedica, Ms. Fisher was the Chief Operating Officer of Acorda Therapeutics, Inc., with responsibility for corporate strategy and business development, financial planning, sales and marketing, and manufacturing. Previously, Ms. Fisher was Vice President, Strategic Healthcare and Commercial Operations for Cephalon, Inc., with responsibility for product planning and marketing, managed care sales, and manufacturing. Her earlier experience includes positions at Immunex Corp. and Boehringer Ingelheim. She is also a member of the board of directors of MDRejuvena, Inc. We believe that Ms. Fisher is qualified to serve on our Board based on her more than 25 years of experience in the pharmaceutical and biotechnology industries, including her executive experience.

Marc Kozin has served as a member of our Board since January 2014. Mr. Kozin has been a Senior Advisor to L.E.K. Consulting, a global strategy consulting firm, since July 2011. Prior to that, Mr. Kozin served as president of L.E.K.'s North American practice for 15 years. Mr. Kozin currently serves as a member of the board of directors of UFP Technologies, Inc., Endocyte, Inc., Flex Pharma, Inc., and one privately-held company. Mr. Kozin previously served as a member of the board of directors of DYAX Corp., a biopharmaceutical company, from January 2012 until January 2016. He also serves on the strategic advisory board for Healthcare Royalty Partners, a global healthcare investment firm. Mr. Kozin holds a B.A., with distinction, in economics from Duke University and an M.B.A., with distinction, from The Wharton School, University of Pennsylvania. We believe that Mr. Kozin is qualified to serve on our Board due to his nearly 30 years of experience in corporate and business unit strategy consulting, merger and acquisition advisory services, and value management both domestically and internationally.

John Sexton, Ph.D. has served as a member of our Board since April 2015. Dr. Sexton is President Emeritus of New York University. He served as the fifteenth President of NYU from 2001 until 2015. He is a Fellow of the American Academy of Arts and Sciences, a member of the Council on Foreign Relations, and a past member of the Executive Committee of the Association of American Universities. He previously served as the Chairman of the Board of the Federal Reserve Bank of New York and Chair of the Federal Reserve Systems Council of Chairs. He was awarded the TIAA-CREF Hesburgh Award for Leadership Excellence, the Foreign Policy Association Medal, the NASPA President's Award for advancing the quality of student life at NYU, and was named one of the "Top Ten College Presidents" by TIME Magazine. Earlier in his career at NYU, he was the Dean and Benjamin Butler Professor of Law at NYU School of Law. Prior to NYU, Dr. Sexton was Law Clerk to Chief Justice Warren Burger of the United States Supreme Court and to Judges David Bazelon and Harold Leventhal of the United States Court of Appeals. Additionally, Dr. Sexton served as Special Master Supervising Pretrial Proceedings in the Love Canal Litigation. He also served as Professor of Religion and Department Chair at Saint Francis College. Dr. Sexton is a published author of several books, chapters, articles and Supreme Court briefs. Dr. Sexton holds a B.A. in History from Fordham College, an M.A. in Comparative Religion, and a Ph.D. in History of American Religion from Fordham University, and a J.D. from Harvard Law School. We believe that Dr. Sexton is qualified to serve on our Board due to his executive experience and his experience with global partnerships.

John Howe, III, M.D. has served as a member of our Board since June 2015. Dr. Howe is a recognized expert in international medicine and is a humanitarian leader. From 2001 through 2015, he served as the President and Chief Executive Officer of Project HOPE, an international health

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education and humanitarian assistance foundation, which operates more than 70 programs in 45 countries on five continents. During Dr. Howe's tenure, Project HOPE expanded its areas of distributing medicine, treating infectious diseases and non-communicable diseases, and promoting the health education and life improvement of women and children. Before Project HOPE, Dr. Howe held the Distinguished Chair in Health Policy at The University of Texas Health Science Center at San Antonio; he served as the Center's chief executive from 1985 through 2000 and is currently the President Emeritus. He is a board member of BB&T Bank, the Chinese Center for Communicable Disease Control and Prevention, the John E. Fogarty International Center at the National Institutes of Health and the Texas Biomedical Research Institute, among others. Among Dr. Howe's numerous honors and awards are the U.S. Army's Commander's Award for Public Service, the Surgeon General's Exemplary Service Award, and the Magnolia Award from the City of Shanghai, China. Dr. Howe is a published author of numerous articles, chapters and abstracts in medical journals, including the New England Journal of Medicine and the Annals of Internal Medicine, among others. Dr. Howe holds a B.A. from Amherst College and an M.D. from Boston University School of Medicine. We believe that Dr. Howe is qualified to serve on the Board due to his experience with global medicine and as a leader of international health initiatives.

There are no family relationships among any of our directors or executive officers.

Board Composition

In accordance with the terms of our certificate of incorporation and by-laws, our Board is divided into three classes, with each class having as near an equal number of directors as possible. The terms of service of the three classes are staggered so the term of one class of our Board expires each year. Upon the expiration of the term of a class of directors, directors in that class are eligible to be elected for a new three-year term at the Annual Meeting of stockholders in the year in which their term expires. Our Board currently consists of eight members, divided into three classes as follows:

- class I consists of Dr. Howe and Mr. Kozin, each with a term expiring at the 2019 annual meeting of stockholders;
- class II consists of Mr. Aldrich, Ms. Fisher and Dr. Sexton, each with a term expiring at the 2020 annual meeting of stockholders; and
- class III consists of Dr. Kroeger and Mr. Capello, each with a term expiring at the 2018 annual meeting of stockholders.

Our certificate of incorporation and by-laws provide that the authorized number of directors may be changed only by resolution of our Board. Our certificate of incorporation and by-laws also provide that our directors may be removed only for cause and only by the affirmative vote of the holders of at least 75% of the votes that all of our stockholders would be entitled to cast in an annual election of directors, and that any vacancy on our Board, including a vacancy resulting from an enlargement of our Board, may be filled only by vote of a majority of our directors then in office.

Board Determination of Independence

We determine whether our Board members and committee members are independent according to the standards set forth in the Nasdaq Listing Rules. The Nasdaq Listing Rules require that, subject to specified exceptions, each member of a listed company's Audit, Compensation and Nominating and Corporate Governance Committees be independent and that Audit Committee members also satisfy independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended. Under Nasdaq Listing Rule 5605(a)(2), a director will only qualify as an "independent director" if, in the opinion of our Board, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be

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considered independent for purposes of Rule 10A-3, a member of an Audit Committee of a listed company may not, other than in his or her capacity as a member of the Audit Committee, the Board, or any other board committee: (1) accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries.

Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our Board determined that none of Messrs. Aldrich, Capello, Kozin, Drs. Sexton and Howe, and Ms. Fisher has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under Rule 5605(a)(2) of the Nasdaq Listing Rules. In making its determination, our Board considered the relationships that each such non-employee director has with our Company, their beneficial ownership of our outstanding capital stock and all other facts and circumstances our Board deemed relevant in determining their independence. In addition, our Board determined that all of the members of our Board's three standing committees described below are independent, as defined under applicable Nasdaq Listing Rules and, in the case of all members of our Audit Committee, the independence requirements contemplated by Rule 10A-3 under the Securities Exchange Act of 1934, as amended.

Board Leadership Structure

Effective as of September 1, 2017, Michelle Dipp, M.D., Ph.D., stepped down as Executive Chair of the Board, and Dr. Kroeger became Chief Executive Officer and a Director. The Board does not currently have a Chairman of the Board. Though not officially serving in a Chairman of the Board capacity, Dr. Kroeger presides over Board matters. Dr. Kroeger's duties include the following:

- preparing or approving the agenda for each Board meeting after input from the Board and management; and
- determining the frequency and length of Board meetings and recommending when special meetings of our Board should be held; and
- working to evolve the Company's corporate strategy and business development.

In March 2016, Mr. Aldrich was appointed as Independent Lead Director of the Board. Mr. Aldrich's duties as Independent Lead Director include the following:

- presiding over meetings of the independent directors in executive session;
- facilitating communications between other members of the Board and the Chief Executive Officer; however, each director is free to communicate directly with the Chief Executive Officer;
- meeting with any director who is not adequately performing his or her duties as a member of our Board or any committee;
- monitoring, with the assistance of the Company's general counsel or outside legal advisors, communications from stockholders and other interested parties and provide copies or summaries to the other directors as he or she considers appropriate;
- reviewing and, if appropriate, recommending action to be taken with respect to written communications from stockholders submitted to our Board (see "Board Processes—Communications with Stockholders" below);
- otherwise consulting with the Chief Executive Officer on matters relating to corporate governance and Board performance.

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Mr. Aldrich, as Independent Lead Director and chair of the Nominating and Corporate Governance Committee, oversees the maintenance and improvement of governance practices that require and support high levels of performance by members of the Board. Mr. Aldrich's leadership encourages open discussion and deliberation, with a thoughtful evaluation of risk, to support the Board's decision-making. Mr. Aldrich's leadership also encourages communication among the directors, and between management and the Board, to facilitate productive working relationships.

In late 2015, our Board decided to appoint an Independent Lead Director because it believed that leadership structure recognized the independent roles of the Board and the Chief Executive Officer and offered the following benefits:

- increasing the independent oversight of OvaScience and enhancing our Board's objective evaluation of our Chief Executive Officer;
- providing the Chief Executive Officer with an experienced sounding board;
- providing greater opportunities for communication between stockholders and our Board; and
- enhancing the independent and objective assessment of risk by our Board.

Board Committees

Our Board has established an Audit Committee, a Compensation Committee, a Nominating and Corporate Governance Committee and a Global Strategy Committee. Each committee operates under a charter that has been approved by our Board. Copies of the committee charters are posted on the Investor Relations section of our website, ir.ovascience.com.

Audit Committee

The responsibilities of the Audit Committee include:

- appointing, terminating (when necessary), approving the compensation of and assessing the independence of our registered public accounting firm;
- overseeing the work of our registered public accounting firm, including through the receipt and consideration of reports from such firm;
- reviewing and discussing with management and the registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- overseeing our internal audit function;
- overseeing our risk assessment and risk management policies;
- establishing policies and procedures for the receipt and retention of accounting related complaints and concerns;
- meeting independently with our internal auditing staff, registered public accounting firm and management;
- reviewing and approving or ratifying any related person transactions; and
- preparing the Audit Committee report required by SEC rules.

The members of the Audit Committee are Messrs. Capello (Chair) and Kozin and Dr. Howe. Our Board has determined that each member of the Audit Committee meets the financial literacy requirement under the applicable Nasdaq Listing Rules and that Mr. Capello is an "Audit Committee

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financial expert" as defined in Item 407(d)(5) of Regulation S-K. All members of the Audit Committee satisfy the current independence standards promulgated by the SEC and by The Nasdaq Stock Market, as such standards apply specifically to members of Audit Committees. The Audit Committee met six times during 2017.

All audit and non-audit services, other than de minimis non-audit services, to be provided to us by our independent registered public accounting firm must be approved in advance by our Audit Committee.

Please also see the report of the Audit Committee set forth elsewhere in this proxy statement.

Compensation Committee

The responsibilities of the Compensation Committee include:

- annually reviewing and approving corporate goals and objectives relevant to our Chief Executive Officer's compensation;
- determining our Chief Executive Officer's compensation;
- reviewing and approving, or making recommendations to our Board with respect to, the compensation of our other executive officers;
- overseeing an evaluation of our senior executives;
- overseeing and administering our equity incentive plans; and
- reviewing and making recommendations to our Board with respect to director compensation.

The members of the Compensation Committee are Dr. Howe (Chair) and Ms. Fisher. Both members are independent as defined under the Nasdaq Listing Rules applicable to Compensation Committee members. The Compensation Committee met eight times during 2017.

Compensation Consultant. During fiscal year 2017, Pearl Meyer and Partners LLC, or Pearl Meyer, a national executive compensation consulting firm, served as our independent compensation consultant. At the request of our Compensation Committee, Pearl Meyer was engaged by our management team and reported directly to our Compensation Committee. Pearl Meyer assists the Compensation Committee in fulfilling its responsibilities under its charter, including advising on proposed compensation packages for executive officers, defining the appropriate market of the Company's peer companies for executive compensation and practices, benchmarking our executive compensation program against the peer group each year and advising on market practices generally. Pearl Meyer also assists the committee in benchmarking our director compensation program and practices against those of our peers. Pearl Meyer interacts with the Compensation Committee, as needed in connection with advising the Compensation Committee, and Pearl Meyer is included in discussions with management and, when applicable, the Compensation Committee's outside legal counsel on matters being brought to the Compensation Committee for consideration.

Pearl Meyer did not provide any services to the Company other than executive and director compensation consulting services during fiscal year 2017. In compliance with SEC rules and the corporate governance rules of The Nasdaq Stock Market, Pearl Meyer provided the Compensation Committee with a letter addressing each of the six independence factors set forth in those rules. Their responses affirm the independence of Pearl Meyer and the partners, consultants, and employees who service the Compensation Committee on executive compensation matters and governance issues. Additionally, the Compensation Committee has assessed the independence of Pearl Meyer pursuant to SEC rules and concluded that Pearl Meyer's work for the Company does not raise any conflict of interest.

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Please also see the report of the Compensation Committee set forth elsewhere in this proxy statement.

Nominating and Corporate Governance Committee

The responsibilities of the Nominating and Corporate Governance Committee include:

- identifying individuals qualified to become Board members;
- recommending to our Board the persons to be nominated for election as directors and to each of the Board's committees;
- reviewing and making recommendations to the Board with respect to management succession planning;
- developing and recommending to the Board corporate governance guidelines; and
- overseeing an annual evaluation of the Board.

The members of the Nominating and Corporate Governance Committee are Messrs. Aldrich (Chair) and Kozin. All members of the Nominating and Corporate Governance Committee qualify as independent under the definition promulgated by The Nasdaq Stock Market.

The Nominating and Corporate Governance Committee met once during 2017.

Global Strategy Committee

In March 2016, our Board established a Global Strategy Committee to support the Board in providing board level global strategic guidance to the executive management team. The Global Strategy Committee's responsibilities include:

- advising the executive management team generally on global strategy, as well as on the development and implementation of the Company's strategic plan; and
- advising the executive management team on strategies for approaching international markets, including guidance on cultural, regulatory and government affairs matters.

Each member of the Global Strategy Committee provides individual guidance to the executive management team that is within such member's specialized area of expertise. The members of the Global Strategy Committee are Drs. Howe and Sexton and Mr. Kozin.

Board Meetings and Attendance

Our Board met nine times during 2017. During 2017, each director attended at least 75% of the aggregate of the number of Board meetings and the number of meetings held by all committees on which he or she then served.

Our corporate governance guidelines provide that directors are expected to attend annual meetings. One of our then current directors attended our annual meeting of stockholders in 2017 because the annual meeting was not held on the day of our Board meeting due to scheduling issues.

Compensation Committee Interlocks and Insider Participation

For the fiscal year ended December 31, 2017, our Compensation Committee was comprised of Dr. Howe (Chair) and Ms. Fisher. No member of our Compensation Committee during the fiscal year ended December 31, 2017 has at any time been an officer or employee of ours. None of our executive officers serves as a member of another entity's board of directors or Compensation Committee that has one or more executive officers serving as a member of our Board or Compensation Committee.

Board Processes

Oversight of Risk

Our Board manages its risk oversight function directly and through its committees. Our management is responsible for risk management on a day to day basis. The role of our Board and its committees is to oversee the risk management activities of management. They fulfill this duty by discussing with management the policies and practices utilized by management in assessing and managing risks and providing input on those policies and practices. In general, our Board oversees risk management activities relating to business strategy, acquisitions, capital allocation, organizational structure and certain operational risks; our Audit Committee oversees risk management activities related to financial controls and legal and compliance risks; our Compensation Committee oversees risk management activities relating to our compensation policies and practices; and our Nominating and Corporate Governance Committee oversees risk management activities relating to Board composition and management succession planning. Each committee reports to our Board on a regular basis, including reports with respect to the committee's risk oversight activities as appropriate. In addition, since risk issues often overlap, committees from time to time request that the full Board discuss particular risks.

Our Compensation Committee has discussed the concept of risk as it relates to our compensation programs, including our executive compensation program. Our Compensation Committee believes that our compensation programs do not encourage excessive or inappropriate risk taking and that any risks arising from our employee compensation policies and practices are not reasonably likely to have a material adverse effect on our Company. Our Compensation Committee believes that any such risks are mitigated by:

- The balanced mix of pay components including base salary, annual cash bonuses and, for most of our employees, equity awards that vest over multiple years and are intended to motivate employees to take a long-term view of our business; and
- The structure of our annual cash incentive bonus program, which is based on (i) multiple performance measures to avoid employees placing undue emphasis on any particular performance metric at the expense of other aspects of our business, and (ii) performance targets that we believe are somewhat aggressive, yet reasonable, and should not require undue risk-taking to achieve.

Director Nomination Process

The process followed by our Nominating and Corporate Governance Committee to identify and evaluate director candidates may include requests to Board members and others for recommendations, evaluation of the performance on our Board and its committees of any existing directors being considered for nomination, consideration of biographical information and background material relating to potential candidates and, particularly in the case of potential candidates that are not then serving on our Board, interviews of selected candidates by members of the committee and our Board.

In considering whether to recommend any particular candidate for nomination as a director, our Nominating and Corporate Governance Committee applies the criteria set forth in our Corporate Governance Guidelines. Consistent with these criteria, our Nominating and Corporate Governance Committee expects every nominee to have the following attributes or characteristics, among others: integrity, honesty, adherence to high ethical standards, business acumen, good judgment, and a commitment to understanding our business and industry.

Our directors' biographies, including those of the nominees for director, are contained under "Corporate Governance—Our Board of Directors" and indicate the experience, qualifications, attributes and skills of each of our current nominees for director that led our Nominating and

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Corporate Governance Committee and our Board to conclude that each of the nominees should continue to serve as a director of OvaScience. Our Nominating and Corporate Governance Committee and our Board believe that each of the nominees has the individual attributes and characteristics required of each of our directors, and the nominees as a group possess the skill sets and specific experience desired of our Board as a whole.

Our Nominating and Corporate Governance Committee does not have a policy (formal or informal) with respect to diversity, but believes that our Board, taken as a whole, should embody a diverse set of skills, experiences and backgrounds and consequently considers the value of diversity when selecting nominees. The Nominating and Corporate Governance Committee does not make any particular weighting of diversity or any other characteristic in evaluating nominees and directors.

Stockholders may recommend individuals for consideration as potential director candidates by submitting their names, together with appropriate biographical information and background materials, and information with respect to the stockholder or group of stockholders making the recommendation, including the number of shares of common stock owned by such stockholder or group of stockholders, to OvaScience, Inc., 9 Fourth Avenue, Waltham, Massachusetts 02451, Attention: Nominating and Corporate Governance Committee. The specific requirements for the information that is required to be provided for such recommendations to be considered are specified in our by-laws. Assuming that appropriate biographical and background material has been provided on a timely basis, the Nominating and Corporate Governance Committee will evaluate stockholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others.

Communications with Stockholders

Our Board will give appropriate attention to written communications that are submitted by stockholders, and will respond if and as appropriate. Stockholders may communicate with the Company through its Investor Relations Department by writing to OvaScience, Inc., 9 Fourth Avenue, Waltham, Massachusetts 02451, Attention: Investor Relations, by calling Investor Relations at 617-500-2802, or by sending an e-mail to info@ovascience.com. Additional information about contacting OvaScience is available on the Investor Relations section of our website, which is located at ir.ovascience.com.

Stockholders and other persons interested in communicating directly with the Independent Lead Director of the Board or with the non-management directors as a group may do so by writing to OvaScience, Inc., 9 Fourth Avenue, Waltham, Massachusetts 02451, Attn: Independent Lead Director of the Board.

Executive Officers

The following table sets forth certain information regarding our executive officers as of April 1, 2018. The following executive officers are at-will employees.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Christopher Kroeger, M.D., M.B.A.	50	Chief Executive Officer, President and Secretary
James Lillie, Ph.D.	62	Chief Scientific Officer
Jonathan Gillis, C.P.A.	37	Senior Vice President, Finance, and Treasurer

Christopher Kroeger, M.D., M.B.A. Dr. Kroeger's biographical information is set forth above under "Our Board of Directors."

James Lillie, Ph.D. joined OvaScience in January 2018. He brings extensive cellular biology and biochemistry experience to OvaScience, and leads the Company's preclinical research and development efforts, including the continued advancement of OvaPrime and OvaTure. Dr. Lillie has more than

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25 years of experience driving preclinical research and development across diverse therapeutic areas. He joins OvaScience from Sanofi Genzyme where he began working in 2004 and ultimately became Vice President of In Vitro Biology. In this role, Dr. Lillie was responsible for developing a scientific strategy for creating a sustainable, high value portfolio in rare diseases. He established a strong pipeline of small molecule drugs and supported the U.S. Food and Drug Administration's approval of Eliglustat and acceptance of two investigational new drug applications. Previously, he was Senior Director, In Vitro Biology at Sanofi Genzyme and, before that, he held roles of increasing responsibility at Millennium Pharmaceuticals, Inc. Earlier, he worked as Senior Director, Biology at Scriptgen Pharmaceuticals, and as co-founder at AMIRA, which was later sold to Repligen Corporation. Dr. Lillie holds a Ph.D. in Biochemistry and Molecular Biology from Harvard University and B.A. in German Literature from Wesleyan University.

Jonathan Gillis, C.P.A. has been with OvaScience since 2013. In his role at OvaScience, he oversees the finance, human resources, informational technology and legal functions. He manages all SEC filings, budgets, works directly with the Audit and Compensation Committees, and is active with investor relations. He has more than 15 years of combined public accounting and overall financial industry experience. He was also instrumental in multiple OvaScience public offerings. Previously, as Senior Director of Global Finance and Operations at OvaScience, Mr. Gillis was based in the United Kingdom and established the international headquarters for the Company. Prior to joining OvaScience, Mr. Gillis was a Senior Manager of External Reporting and Compliance at GFI Software in 2013, where he prepared the company for its initial public offering and managed SEC compliance. Earlier in his career, Mr. Gillis was a Manager at PricewaterhouseCoopers, LLP, where he was responsible for all stages of integrated and non-integrated audit engagements with clients ranging from million-dollar private companies to multi-billion-dollar public companies. Mr. Gillis is a certified public accountant. He holds a B.S. and a M.S. in Accounting from Babson College.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Policies and Procedures for Related Person Transactions

Our Board has adopted written policies and procedures for the review of any transaction, arrangement or relationship in which we are a participant, the amount involved exceeds \$120,000, and one of our executive officers, directors, director nominees or 5% stockholders (or their immediate family members), each of whom we refer to as a related person, has a direct or indirect material interest.

If a related person proposes to enter into such a transaction, arrangement or relationship, which we refer to as a "related person transaction," the related person must report the proposed related person transaction to our Chief Legal Officer or, in the event we do not have a Chief Legal Officer, to our Principal Financial Officer. The policy calls for the proposed related person transaction to be reviewed and, if deemed appropriate, approved by the Audit Committee of our Board. Whenever practicable, the reporting, review and approval will occur prior to entry into the transaction. If advance review and approval is not practicable, the committee will review, and, in its discretion, may ratify the related person transaction. The policy also permits the chair of the committee to review and, if deemed appropriate, approve proposed related person transactions that arise between committee meetings, subject to ratification by the committee at its next meeting. Any related person transactions that are ongoing in nature will be reviewed annually.

A related person transaction reviewed under the policy will be considered approved or ratified if it is authorized by the committee after full disclosure of the related person's interest in the transaction. As appropriate for the circumstances, the committee will review and consider:

- the related person's interest in the related person transaction;
- the approximate dollar value of the amount involved in the related person transaction;
- the approximate dollar value of the amount of the related person's interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose of, and the potential benefits to us of, the transaction; and
- any other information regarding the related person transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

The committee may approve or ratify the transaction only if the committee determines that, under all of the circumstances, the transaction is not inconsistent with our best interests. The committee may impose any conditions on the related person transaction that it deems appropriate.

In addition to the transactions that are excluded by the instructions to the SEC's related person transaction disclosure rule, our Board has determined that the following transactions do not create a direct or indirect material interest on behalf of related persons and, therefore, are not related person transactions for purposes of this policy:

- interests arising solely from the related person's position as an executive officer of another entity (whether or not the person is also a director of such entity), that is a participant in the transaction, where (a) the related person and all other related persons own in the aggregate less than a 10% equity interest in such entity, (b) the related person and his or her immediate family members are not involved in the negotiation of the terms of the transaction and do not receive

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any special benefits as a result of the transaction and (c) the amount involved in the transaction is less than the greater of \$200,000 or 5% of the annual consolidated gross revenues of the other entity that is a party to the transaction; and

- a transaction that is specifically contemplated by provisions of our charter or by-laws.

The policy provides that transactions involving compensation of executive officers shall be reviewed and approved by the Compensation Committee in the manner specified in its charter.

Related Person Transactions

Except as set forth below and in this proxy statement under the captions "Executive Compensation" and "Director Compensation," there were no transactions to which we were a party since January 1, 2017 through the date of this proxy statement with our directors and officers and beneficial owners of more than 5% of our voting securities and their affiliates.

Indemnification

Our certificate of incorporation provides that we must indemnify our directors and officers to the fullest extent permitted by Delaware law and must advance expenses, including attorneys' fees, to our directors and officers in connection with legal proceedings, subject to very limited exceptions. In addition, we have entered into indemnification agreements with our directors.

COMPENSATION DISCUSSION AND ANALYSIS

Our Compensation Committee is responsible for overseeing the total compensation of our executive officers. In this capacity, our Compensation Committee designs, implements, reviews and approves all compensation for our Chief Executive Officer and our other Named Executive Officers. This section discusses the principles underlying our policies and decisions with respect to the compensation of our executive officers who are named in the Summary Compensation Table below, or our Named Executive Officers, and all material factors relevant to an analysis of these policies and decisions. Our Named Executive Officers for purposes of this disclosure are:

- Christopher Kroeger, M.D., M.B.A., our Chief Executive Officer;
- Jonathan Gillis, C.P.A., our Senior Vice President, Finance;
- Michelle Dipp, M.D., Ph.D., our former Executive Chair; and acting President; and
- Christophe Couturier, our former Chief Financial Officer.

Executive Summary and Corporate Background

We are a global fertility company focused on the discovery, development, and commercialization of new fertility treatment options for women. During 2017, we refocused our business on research and development of our core treatment options and made two important transitions in our executive management team. As announced during 2017, we implemented restructurings of our business that are designed to reflect and enable an evolving corporate strategy, and these changes are reflected in our executive management team.

- In December 2016, we determined to change our corporate strategy and we implemented that refocus in 2017. As part of this strategic shift, we announced that we would continue to make our AUGMENTSM treatment available to patients at partner clinics in Canada and Japan and maintain our current commercial footprint, but would slow our commercial expansion, reassess the ongoing and planned clinical studies of AUGMENT, and undertake a corporate restructuring, including a workforce reduction to better align our workforce to our revised corporate strategy and to carefully manage our cash burn. These changes enabled us to extend our cash position and increase our focus on the development of OvaPrimeSM and OvaTureSM.
- In January 2017, following the announcement of the restructuring, we approved a retention plan providing for cash bonuses and equity grants for participating employees. The purpose of the retention plan was to incentivize employees to remain with us following the announcement of the corporate restructuring. Pursuant to the retention plan, participating employees received equity grants that vest over a two-year period and cash bonuses, payable either in a lump sum or over time, subject to the employees' remaining with us as of the vesting or payment dates.
- On June 21, 2017, we announced that Christopher Kroeger, M.D., M.B.A., had been appointed as our Chief Executive Officer-Elect, and would begin to serve as our Chief Executive Officer on September 1, 2017, and that Dr. Michelle Dipp would remain as Executive Chair and acting President until September 1, 2017. On September 1, 2017, Dr. Dipp became an advisor to the Company. Also on that date, we announced that we would discontinue ongoing efforts related to the AUGMENTSM treatment outside of North America, and would restructure our organization to better align with a focus on the development of OvaPrimeSM and OvaTureSM, including reducing our workforce by approximately 50 percent.
- In June, 2017, Jonathan Gillis, previously Vice President, Finance, became our Senior Vice President, Finance, replacing Mr. Couturier, our former Chief Financial Officer.

The goal of our Compensation Committee is to ensure that our compensation programs are aligned with the interests of our stockholders and our business goals and that the total compensation

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paid to each of our Named Executive Officers is fair, reasonable and competitive. Key elements of our compensation programs include:

- cash compensation, including base salary and annual bonuses, to enable us to attract and retain the talent needed to continue to operate our business successfully; and
- equity incentive compensation, which is provided to all employees, is typically subject to multi-year vesting based on continued service and is primarily in the form of stock options, the value of which depends on the performance of our common stock price, or restricted stock units, in order to align employee interests with those of our stockholders over the longer term.

We target competitive pay opportunities as compared to similarly situated executives of the companies in our peer group for total cash compensation and total equity compensation. Actual compensation levels are correlated to the achievement of corporate and individual goals, reinforcing our pay-for-performance philosophy. In addition, we adhere to market best practices in administering our executive compensation program:

<u>What We Do</u>	<u>What We Don't Do</u>
✓ Consult with an independent compensation consultant	✗ No tax gross-up payments to our executive team for any change-of-control payments
✓ Conduct an annual review of pay levels	✗ No hedging transactions with our securities or pledging our securities
✓ Incentive payouts based on multiple performance measures	✗ No excessive benefits or perquisites
✓ Multi-year vesting of equity awards	✗ No option repricing without shareholder approval

Based on our performance during 2017, our Compensation Committee determined that we achieved 75% of our corporate goals for 2017. In 2017, payouts under our bonus program depended on our executives achieving certain corporate and individual goals to advance the Company's strategic growth plan.

Defining and Comparing Compensation to Market Benchmarks

In evaluating the total compensation of our Named Executive Officers, our Compensation Committee, using information provided by Pearl Meyer, establishes a peer group of publicly traded, national and regional companies in the life sciences industry that is selected based on a balance of the following criteria:

- companies whose number of employees and stage of development are similar, though not necessarily identical, to ours;
- companies against which we believe we compete for executive talent; and
- public companies based in the United States whose compensation and financial data are available in various filings with the Securities and Exchange Commission or through widely available compensation surveys.

Based on these criteria, and taking into account the change in our corporate strategy noted above, our Compensation Committee established and approved a peer group in May 2017, which was comprised of the companies listed below. This peer group has not been updated since that time.

- Alimera Sciences, Inc.
- Argos Therapeutics, Inc.
- ArQule, Inc.
- CombiMatrix Corporation

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- Concert Pharmaceuticals, Inc.
- EyePoint Pharmaceuticals, Inc. (formerly known as pSivida Corp.)
- Genoece Biosciences, Inc.
- ImmunoGen, Inc.
- Infinity Pharmaceuticals, Inc.
- Juniper Pharmaceuticals, Inc.
- Melinta Therapeutics, Inc. (formerly known as Cembra, Inc.)
- Ocular Therapeutix, Inc.
- Orexigen Therapeutics, Inc.
- Psychemedics Corporation
- Tetrphase Pharmaceuticals, Inc.
- Vericel Corporation
- XOMA Corporation
- Zafgen, Inc.

We believe that the compensation practices of our peer group provided us with appropriate compensation benchmarks for evaluating the compensation of our Named Executive Officers during 2017. Due to the nature of our business, we compete for executive talent with many public companies that are larger and more established than we are or that possess greater resources than we do, or with smaller private companies that may be able to offer greater equity compensation potential, as well as with prestigious academic and non-profit institutions. Accordingly, in 2017, our Compensation Committee generally targeted competitive compensation levels compared to our peer group with respect to base salaries, annual cash bonus opportunities, annual equity incentive awards and overall compensation for our Named Executive Officers. While our peer group is used to identify competitive market rates, our Compensation Committee also considers other criteria, including market factors, the experience level of the executive and the executive's performance against established corporate goals, in determining variations to this general target range.

Compensation Principles and Objectives

Our overall compensation program is structured to attract, motivate and retain highly qualified executive officers by paying them competitively, consistent with our success and their contribution to that success. Our ability to excel depends on the skill, creativity, integrity and teamwork of our employees. We believe compensation should be structured to ensure that a portion of compensation opportunity will be related to factors that directly and indirectly influence long-term stockholder value. Our compensation philosophy has been driven by a number of factors that are closely linked with our broader strategic objectives.

The Compensation Committee believes that compensation paid to our Named Executive Officers should be aligned with our performance on both a short-term and long-term basis, linked to results intended to create value for stockholders, and that such compensation should assist us in attracting and retaining key executives critical to our long-term success.

In establishing compensation for executive officers, the following are the Compensation Committee's objectives:

- align executive officer and stockholder interests by providing a portion of total compensation opportunities for executives in the form of equity awards and bonuses awarded based on the Compensation Committee's review of Company and individual performance;

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- ensure executive officer compensation is competitive within the marketplace in which we compete for executive talent by relying on the Compensation Committee's judgment, expertise and personal experience with other similar companies, recognizing that because of the Company's business model and relatively early stage of development, there may be few directly comparable companies; and
- recognize that best compensation practices for a young company may be substantially different than for a larger, more mature company and that we should make full use of our greater latitude and breadth of compensation opportunities.

Determination of Compensation

The Compensation Committee is charged with the primary authority to determine and recommend the compensation awards available to our executive officers for approval by the Board. Based on the Compensation Committee members' collective understanding of compensation practices in similar companies in the biotechnology and pharmaceutical industry, our executive compensation package consists of the following elements, in addition to the employee benefit plans in which all employees may participate:

- Base salary: cash compensation for ongoing services throughout the year.
- Annual cash bonus awards: cash awards to recognize and reward achievement of corporate and individual performance.
- Long-term equity incentive program: equity compensation to provide an incentive to our Named Executive Officers to manage us from the perspective of an owner with an equity stake in the business.
- Severance and change in control benefits: remuneration paid to certain executives in the event of a qualifying termination of employment.

We set base salary and annual bonus structures and any grants of stock options based on the Compensation Committee members' collective understanding of compensation practices in the biotechnology industry and such members' experiences as seasoned executives, consultants, board and compensation committee members, or investors in similar biotechnology and specialty pharmaceutical industry companies. In addition, from time to time the Compensation Committee may rely on compensation data provided by Pearl Meyer.

Annual Performance Reviews

Our Compensation Committee conducts an annual performance review of our Named Executive Officers and approves the compensation of each member of our senior management team. By the end of the first quarter of each year, annual corporate goals and individual performance objectives are determined and set forth in writing. Annual corporate goals are proposed by our management team and approved by our Board. These corporate goals target the achievement of specific operational milestones. The Compensation Committee determines the Chief Executive Officer's goals, which are tied to the annual corporate goals. The Compensation Committee determines the annual individual goals of the other executive officers based on recommendations from the Chief Executive Officer. These goals focus on contributions that facilitate the achievement of specific corporate goals. After the end of each year, our Compensation Committee determines executive compensation levels after carefully reviewing overall corporate performance and performing an evaluation of each Named Executive Officer's annual performance against established corporate goals, as well as each individual executive officer's contributions to achievement of the corporate goals and, in the case of executive officers other than our Chief Executive Officer, the achievement of individual performance objectives. In addition, our Compensation Committee may apply its discretion, as it deems appropriate, in determining executive compensation.

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For 2017, our Chief Executive Officer's bonus was based entirely on performance relative to corporate goals, and the bonus for Mr. Gillis (who is the only other Named Executive Officer to receive a bonus for 2017 performance) was based on a combination of corporate goals and individual objectives. Individual objectives for 2017 for Mr. Gillis focused on individual contributions that were intended to advance the Company's strategic growth plan. Any cash awards were based on the achievement of applicable corporate and individual performance goals and objectives.

Elements of Executive Compensation

Base Salaries

Base salaries of our Named Executive Officers (other than our Chief Executive Officer) are recommended and reviewed periodically by our Chief Executive Officer, and, after recommendation from the Chief Executive Officer to the Compensation Committee, the base salary for each Named Executive Officer is approved by our Compensation Committee. The compensation of our Chief Executive Officer is set by the Compensation Committee. Adjustments to base salaries are based on the scope of an executive's responsibilities, individual contribution, experience and sustained performance. Decisions regarding salary increases may also take into account amounts paid to individuals in comparable positions at our peer companies. No formulaic base salary increases are provided to our Named Executive Officers. This strategy is consistent with our intent of offering compensation that is cost-effective, competitive and contingent on the achievement of performance objectives.

In connection with Dr. Kroeger's joining the Company in September 2017, his annual base salary was set at \$550,000. This was determined through negotiations with the Company and was determined to be in line with chief executive officer compensation for similarly situated companies.

Dr. Dipp is a founder of our Company. As such, from the time the Company was founded in 2011 until Dr. Dipp's appointment to the role of Executive Chair in January 2016, we did not compensate Dr. Dipp with cash for her service. In lieu of cash compensation, Dr. Dipp received time-based restricted stock unit awards and stock options until her appointment as Executive Chair in 2016, at which time we entered into a five year employment agreement, or the EC Agreement, with Dr. Dipp. Pursuant to the EC Agreement, Dr. Dipp initially received an annual base salary of \$500,000 per year, and was eligible for a cash bonus, as described below. Pursuant to the EC Agreement, Dr. Dipp's currently outstanding options to purchase common stock continued to vest pursuant to their current vesting schedule while she served as Executive Chair. The unvested portion of Dr. Dipp's time-based restricted stock unit award (in the amount of 15,451 restricted stock units) issued in December 2014 was terminated upon entry into the EC Agreement. Dr. Dipp did not receive any new equity grant in connection with entering the EC Agreement.

Dr. Dipp continued to be Executive Chair and Acting President of the Company until Dr. Kroeger became Chief Executive Officer of the Company on September 1, 2017. The EC Agreement automatically terminated when Dr. Kroeger became Chief Executive Officer, and from and after September 1, 2017 Dr. Dipp served as an advisor to the Company pursuant to the terms of an Advisory Agreement dated June 21, 2017 (the "Advisory Agreement"), which took effect (for purposes of all terms other than the stock option grant described below, which was made on June 21, 2017 upon the execution of the Advisory Agreement) simultaneously with the termination of the EC Agreement. The Advisory Agreement was scheduled to expire on December 31, 2018. Pursuant to the Advisory Agreement, Dr. Dipp (i) was paid \$241,667 for the period from September 1, 2017 to December 31, 2017, which is equivalent to the payments Dr. Dipp would have received under the EC Agreement, and (ii) was to be paid \$250,000 for 2018. On April 30, 2018, the Company and Dr. Dipp entered into a Termination Agreement with respect to the Advisory Agreement. The Termination Agreement provides that Dr. Dipp shall forego the discretionary cash bonus for fiscal 2017 in the amount of up to \$300,000 to which she was entitled under the Advisory Agreement, as well as the \$250,000 retainer she was

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entitled to receive for 2018, and that all of her unvested stock options shall become fully vested and remain exercisable until the expiration date of such options.

Mr. Couturier joined the Company in August 2016 pursuant to an offer letter, which provided that Mr. Couturier's base salary was \$400,000. Mr. Couturier's base salary was increased to \$420,000 for 2017. As described below, we entered into a separation agreement with Mr. Couturier dated June 21, 2017 that provided that Mr. Couturier would assist with the transition of his role through July 31, 2017 and receive severance including six months of his base salary.

Pursuant to the terms of his amended employment agreement dated June 14, 2017, pursuant to which he was promoted to become the Company's principal financial and accounting officer, Mr. Gillis had an annual base salary of \$250,000, which was increased to \$270,000 for 2018. This was determined through negotiations with the Company and was determined to be in line with principal financial officer compensation for similarly situated companies. We also agreed to pay Mr. Gillis a retention bonus of \$100,000 to be paid out over the first six months from the date of the agreement, a \$50,000 retention bonus to be paid in December 2018 and a \$50,000 retention bonus to be paid in June 2019.

The actual base salaries paid to all of our Named Executive Officers during 2017 are set forth in the "Summary Compensation Table" below.

Annual Bonuses

Cash bonuses are intended to provide incentives to drive Company-wide performance. Our Named Executive Officers are eligible to receive an annual cash bonus targeted as a percentage of the executive's base salary. Dr. Kroeger is eligible to receive an annual discretionary bonus award of up to 60% of his then current base salary. The bonus award, if any, will be determined by the Company's Board of Directors or a committee thereof and will be based upon the achievement of specific goals which shall be determined by the Board.

Mr. Gillis is eligible to receive an annual discretionary bonus award of up to 35% of his then current base salary. The bonus award, if any, will be determined by the Board or a committee thereof and will be based in the achievement of specific goals which shall be determined by the Chief Executive Officer, in consultation with the Board.

Dr. Dipp was eligible to receive the same discretionary cash bonus for 2017 that she was entitled to under the EC Agreement, which is an annual discretionary bonus award (based on her performance in 2017) of up to 60% of her 2017 annual base salary of \$500,000 under the EC Agreement, provided that the annual bonus could equal up to 90% of \$500,000 if Dr. Dipp achieved over 100% of her 2017 performance objectives. However, pursuant to the Termination Agreement, Dr. Dipp has agreed to forego the discretionary cash bonus for fiscal 2017.

Prior to his departure from the Company, Mr. Couturier was eligible to receive an annual discretionary bonus of up to 50% of his annual salary, provided that he was eligible to receive as much as 150% of his target bonus if he exceeded his performance objectives. As described below, pursuant to his separation agreement, Mr. Couturier received a pro rata bonus of \$105,000 for fiscal 2017.

Under the 2017 annual bonus program, bonus awards were determined by first establishing a bonus pool. The bonus pool was calculated by aggregating the maximum awards for all eligible plan participants and then multiplying that sum by a modifier established by our Compensation Committee based on our performance as measured against the 2017 corporate goals. The bonus pool was then allocated among all of the plan participants in accordance with the terms of the 2017 annual bonus program.

The determination of the amount of annual bonuses paid to our Named Executive Officers generally reflects a number of considerations by the Compensation Committee acting in their discretion, including, among other things, the performance of the Company and a subjective evaluation

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of the individual contribution and performance of each Named Executive Officer. Bonus determinations are not formulaic and no particular weight is assigned to any of the factors considered by the Compensation Committee.

The table below shows the target award under the 2017 annual bonus program as a percentage of each Named Executive Officer's annual base salary in 2017, the target cash award opportunity in dollars for 2017 and the actual cash bonus payments to our Named Executive Officers for 2017 performance, which were paid in March 2018. The details regarding the determination of these cash bonus awards are discussed below.

Name	2017 Target Award (% of Base Salary)	2017 Target Award Opportunity (\$)	2017 Actual Bonus Payment (\$)
Christopher Kroeger, M.D., M.B.A.(1)	60	175,276	131,457
Michelle Dipp, M.D., Ph.D.(2)	60	300,000	—
Jonathan Gillis, CPA	35	87,500	87,500
Christophe Couturier	50	210,000	105,000

- (1) Dr. Kroeger's 2017 Target Award Opportunity was prorated based on his date of commencement of employment with the Company which was June 21, 2017.
- (2) Dr. Dipp waived her eligibility for the cash bonus pursuant to a Termination Agreement dated April 30, 2018. See "Executive Compensation—Employment Agreements and Separation Agreements" below.

2017 Corporate Goals

In making its determinations regarding awards under the 2017 annual bonus program, our Compensation Committee considered our success against our 2017 corporate goals, which included stretch/bonus goals as well as individual contributions to the Company's goals. The 2017 corporate goals approved by our Board included goals and sub-goals relating to progress with our OvaTure program (weighted 20%), delivery on goals relating to our Phase I OvaTure study (weighted 30%), maintaining the availability of AUGMENT to patients (weighted 10%), operational execution (weighted 20%), team culture (weighted 10%) and finance (weighted 10%). During 2017, we made progress on our business goals, such as meeting enrollment and safety data readout goals relating to our Phase I OvaPrime study, progressing our OvaTure development plan, making publications relating to our treatments, various operational excellence goals and controlling our cash burn.

On December 5, 2017, the Compensation Committee determined that the Company had achieved 75% of its corporate goals, as set forth above.

Equity Awards

We have historically not granted short-term, equity-based incentive awards. The goals of our long-term, equity-based incentive awards are to align the interests of our Named Executive Officers with the interests of our stockholders. Because vesting is based on continued service, rather than achievement of certain performance objectives, our equity-based incentives also encourage the retention of our Named Executive Officers during the award vesting period. In determining the size of the long-term equity incentives to be awarded to our Named Executive Officers, we take into account a number of factors, such as the relative job scope, the value of existing stockholdings and long-term incentive awards, individual performance history, prior contributions to our business and the size of prior grants.

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To reward and retain our Named Executive Officers in a manner that aligns their interests with stockholders' interests, we have historically used stock options as the primary incentive vehicle for long-term compensation. Because employees realize value from stock options only if our stock price increases relative to the stock option's exercise price, we believe stock options provide meaningful incentives to achieve increases in the value of our stock over time.

We have generally used stock options to compensate our Named Executive Officers both in the form of initial grants in connection with the commencement of employment and additional or "refresher" grants, but have also used restricted stock unit awards as well due to the maturation of the Company, volatility in the Company's stock price and the fact that certain Named Executive Officers hold stock options that are significantly out-of-the-money. While we do review the competitive practices of the companies in our peer group, we have not established a formula or program for determining the size of any equity award, including any annual refresher grants, and our Compensation Committee retains discretion to make stock or option awards to employees at any time, including in connection with the promotion of an employee, to reward an employee, for retention purposes or in other circumstances recommended by management.

The exercise price of each stock option grant is at or above the fair market value of our common stock on the grant date, for which we use the closing price of our common stock on the grant date. Stock option awards typically vest over a four-year period as follows (subject to continued service through the applicable vesting date): 25% of the shares underlying the option vest on the first anniversary of the vesting commencement date, and 6.25% of the shares will vest in equal quarterly installments over the following three years. We believe these vesting schedules appropriately encourage continued service with the Company while allowing our executives to realize compensation in line with the value they have created for our stockholders.

In connection with his appointment, Dr. Kroeger received a stock option to purchase 1,783,106 shares of the Company's common stock, at an exercise price of \$1.46 per share. This grant was intended to provide Dr. Kroeger with a potential equity interest equal to 5% of the Company's then outstanding common stock and significantly align Dr. Kroeger's interest with the interests of our Company and its stockholders over the vesting period. Pursuant to his employment agreement, Dr. Kroeger will not be eligible to receive additional option grants under the Company's annual long term incentive grant program in 2018 and 2019. Dr. Kroeger may be eligible to receive future option grants as the Board deems appropriate as part of special grants or as part of the Company's annual long term incentive program from and after 2020. Dr. Kroeger's stock option has a ten-year term and will vest over approximately five years and seven months, subject to continued service with the Company through the applicable vesting dates, pursuant to the following vesting schedule: (i) 1,069,864 of the shares will vest over the period from June 21, 2017 to June 21, 2021, with 25% of such shares vesting on June 21, 2018 and 6.25% of such shares vesting each quarter thereafter; (ii) 356,621 of the shares will vest over the period from June 21, 2017 through January 31, 2022, with 25% of such shares vesting on January 31, 2019 and 6.25% of such shares vesting each quarter thereafter; and (iii) 356,621 of the shares will vest over the period from June 21, 2017 through January 31, 2023, with 25% of such shares vesting on January 31, 2020 and 6.25% of such shares vesting each quarter thereafter. This stock option was granted outside of the Company's 2012 Stock Incentive Plan as an inducement material to Dr. Kroeger's acceptance of employment in accordance with Nasdaq Listing Rule 5635(c)(4).

Mr. Gillis was granted an option to purchase 15,000 shares of common stock at an exercise price of \$1.49 per share on March 2, 2017. The option has a ten year term, vesting over four years with 25% of the option shares vesting on March 2, 2018 and 6.25% of the option shares vesting at the end of each successive three-month period thereafter until March 2, 2021. Mr. Gillis also received a stock option to purchase 30,000 shares of common stock at an exercise price of \$1.46 per share on June 21, 2017. This option has a ten-year term, vesting over four years with 25% of the option shares vesting on June 14, 2018 and 6.25% of the option shares vesting at the end of each successive three-month period

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thereafter until June 14, 2021. In addition, Mr. Gillis received a stock option to purchase 128,645 shares of common stock at an exercise price of \$0.93 per share on February 8, 2018. This option has a ten-year term, vesting over four years with 25% of the option shares vesting on February 8, 2019 and 6.25% of the option shares vesting at the end of each successive three-month period thereafter until February 8, 2022.

On March 2, 2017, the Compensation Committee made a stock option grants to Dr. Dipp in the amount of 150,000 shares, in recognition of Dr. Dipp's contributions to the Company during 2016. This option has an exercise price of \$1.49 per share. In addition, pursuant to the terms of the Advisory Agreement, on June 21, 2017, Dr. Dipp received a stock option to purchase 175,000 shares at an exercise price of \$1.46 per share. The option has a ten-year term, vesting over two years, with 12.5% of the option shares vesting on September 21, 2017 and 12.5% of the option shares vesting at the end of each successive three-month period thereafter until June 21, 2019. Pursuant to the Termination Agreement with Dr. Dipp, all of her unvested stock options shall vest and be immediately exercisable until the expiration date of such options.

In connection with the commencement of his employment with us, Mr. Couturier received an option to purchase 200,000 shares of Common Stock, at an exercise price of \$7.15 per share. The stock option had a ten-year term, vesting over four years, with 25% of the shares vesting on September 6, 2017 and 6.25% of the shares vesting each quarter thereafter. Mr. Couturier also received a restricted stock unit award representing the right to receive 50,000 shares of common stock, vesting over four years. In addition, Mr. Couturier was granted an option to purchase 45,750 shares at an exercise price of \$1.49 per share on March 2, 2017. Additionally, Mr. Couturier's offer letter provided that if Mr. Couturier remained employed by the Company as of the first regularly scheduled meeting of the Board of Directors or the Compensation Committee of the Board of Directors in 2017, Mr. Couturier was eligible to receive, subject to the percentage achievement of performance objectives to be determined by the Compensation Committee or the Board of Directors and approval of such grant by the Compensation Committee or the Board of Directors, an additional grant of up to 75,000 options. These options were not granted. As noted above and described below, Mr. Couturier left employment with the Company in July 2017. Pursuant to his separation agreement, Mr. Couturier was entitled to exercise 25,000 vested options (granted pursuant to the Company's retention plan described below) for up to 180 days past his termination of employment with the Company. The remainder of his options were terminated and his restricted stock, none of which had vested, was forfeited.

No other grants were made to any of our Named Executive Officers during 2017.

Retention Agreements

Because of the transitions facing the Company in 2016 and 2017 and the Compensation Committee's desire to encourage Dr. Dipp to continue leading the Company until such time as a permanent Chief Executive Officer could be identified and retained, the EC Agreement between the Company and Dr. Dipp included a retention agreement providing that Dr. Dipp was entitled to receive \$37,500 on the last day of each quarter ending between March 31, 2016 and December 31, 2017 for so long as Dr. Dipp was employed by us at the end of the applicable quarter.

In light of the corporate restructuring announced in December 2016 and implemented in 2017, and in order to incentivize certain employees to remain with the Company in order to implement the Company's new strategic direction, at its meeting on January 5, 2017, the Compensation Committee approved a retention plan providing for cash bonuses and equity grants for employees of the Company, including Mr. Couturier. Pursuant to the retention plan, Mr. Couturier received an option to purchase 100,000 shares of Common Stock, vesting in equal quarterly amounts over two years, and a cash bonus totaling \$100,000, payable in two tranches of \$50,000 each in the first pay periods following June 30, 2017 and December 31, 2017, subject to his remaining with the Company on such dates. As noted

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above and described below, Mr. Couturier has left employment with the Company and so did not receive the second \$50,000 tranche of his retention bonus.

In light of the Company's 2017 restructurings, and pursuant to the terms of his amended employment agreement dated June 14, 2017, the Company agreed to pay Mr. Gillis a retention bonus of \$100,000 to be paid out over the first six months from the date of the agreement.

Severance and Change in Control Arrangements

Our Named Executive Officers either have or had employment arrangements that provide that they are eligible to receive severance payments and benefits upon an involuntary termination of employment, whether or not in connection with a change in control of our Company. We believe that this protection serves to encourage continued attention and dedication to duties without distraction arising from the possibility of a change in control, and provides the business with a smooth transition in the event of such a termination of employment in connection with a transaction. These severance and change in control arrangements are designed to keep our Named Executive Officers in these key positions as we compete for talented executives in the marketplace where such protections are commonly offered. For a detailed description of the severance provisions contained in our Named Executive Officers' employment arrangements, see "Potential Payments Upon Termination or Change in Control" below.

Under the terms of the CEO Agreement, Dr. Kroeger's employment with the Company may be terminated at any time, with or without cause and without any prior notice, by either Dr. Kroeger or the Company. If the Company terminates Dr. Kroeger's employment without cause or Dr. Kroeger terminates his employment for good reason, he will be entitled to receive (a) continuation of his then-current base salary for a period of twelve months, which will be payable in periodic installments over the same period and (b) continuation of COBRA health insurance premiums at the Company's then-normal rate of contribution during the 12-month severance period. In the event of a change of control (as defined in the CEO Agreement) of the Company where Dr. Kroeger's employment is terminated by the Company without cause (as defined in the CEO Agreement) or Dr. Kroeger resigns for good reason (as defined in the CEO Agreement) within one year of the change of control, the vesting of his stock options will accelerate in full.

Mr. Gillis' employment with the Company may be terminated at any time, with or without cause and without any prior notice, by either Mr. Gillis or the Company. If the Company terminates Mr. Gillis's employment without cause or Mr. Gillis terminates his employment for good reason, he will be entitled to receive continuation of his then-current base salary for a period of six months, which will be payable in periodic installments over the same period, as well as payment in a lump sum of any amount of his retention bonuses described above that have not been paid on such date. If the Company terminates Mr. Gillis' employment without cause or Mr. Gillis terminates his employment for good reason, he will be entitled to receive continuation of his then-current base salary for a period of six months, which will be payable in periodic installments over the same period, as well as payment in a lump sum of any amount of his retention bonuses described above that have not been paid on such date.

Upon expiration or termination of the Advisory Agreement with Dr. Dipp for any reason, or upon a Change of Control Event (as described in the Advisory Agreement), the Advisory Agreement provided that all of Dr. Dipp's unvested stock options outstanding on the date of termination would vest and be immediately exercisable, and Dr. Dipp would be able to exercise all of her stock options for two years following the date of such termination. On April 30, 2018, the Company and Dr. Dipp entered into a Termination Agreement with respect to the Advisory Agreement. The Termination Agreement provides that Dr. Dipp shall forego the discretionary cash bonus for fiscal 2017 in the amount of up to \$300,000 to which she was entitled under the Advisory Agreement, as well as a

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\$250,000 retainer she was entitled to receive for 2018, and that all of her unvested stock options shall become fully vested and remain exercisable until the expiration date of such options.

We entered into a separation agreement with Mr. Couturier in connection with his departure from employment with the Company in July 2017. Mr. Couturier's separation agreement provided that he would assist with the transition of his role through July 31, 2017 and would receive severance of: six months of his base salary; monthly premiums for COBRA coverage for six months; a pro rata bonus of \$105,000; a \$50,000 retention bonus due on June 30, 2017; and the ability to exercise 25,000 vested options for up to 180 days past his termination of employment with the Company. The remainder of his options were terminated and his restricted stock, none of which had vested, was forfeited.

Tax Considerations

Elimination of 280G Tax Gross Up Provision

Section 280G of the Code disallows a tax deduction with respect to excess parachute payments to certain executives of companies which undergo a change in control. In addition, Section 4999 of the Code imposes a 20% excise tax on the individual with respect to the excess parachute payment. Parachute payments are compensation linked to or triggered by a change in control and may include, but are not limited to, bonus payments, severance payments, certain fringe benefits, and payments and acceleration of vesting from long-term incentive plans including stock options and other equity-based compensation. Excess parachute payments are parachute payments that exceed a threshold determined under Section 280G of the Code based on the executive's prior compensation. In approving the compensation arrangements for our Named Executive Officers in the future, our Compensation Committee will consider all elements of the cost to the Company of providing such compensation, including the potential impact of Section 280G of the Code. However, our Compensation Committee may, in its judgment, authorize compensation arrangements that could give rise to loss of deductibility under Section 280G of the Code and the imposition of excise taxes under Section 4999 of the Code when it believes that such arrangements are appropriate to attract and retain executive talent.

Compensation Risk Management Disclosure

As part of its responsibility to set appropriate executive compensation, the Compensation Committee annually considers balance in the compensation program and its impact on the Company's risk management profile. Specifically, in 2017, the Compensation Committee considered whether the mix of performance-based pay, the performance metrics and the degree of difficulty of the performance goals was sufficient to encourage management to strive for strong performance without encouraging risk taking beyond established risk parameters. These factors include: an effective balance between the cash and equity mix and short and long-term focus, the use of multiple performance metrics for annual incentive programs and independent committee oversight of the compensation programs.

After discussing all such matters, the Compensation Committee determined that in relation to 2017, the Company's compensation program is appropriately structured and does not motivate individuals or groups to take risks that are reasonably likely to have a material adverse effect on the Company.

COMPENSATION COMMITTEE REPORT

The Compensation Committee of our Board has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K, which appears elsewhere in this proxy statement, with our management. Based on this review and discussion, the Compensation Committee has recommended to the Board that the Compensation Discussion and Analysis be included in our proxy statement.

Members of the OvaScience, Inc. Compensation Committee

John Howe, III, Chair
Mary Fisher

EXECUTIVE COMPENSATION

Overview

For 2017, our "Named Executive Officers" were Christopher Kroeger, M.D., M.B.A., our Chief Executive Officer; Michelle Dipp, M.D., Ph.D., our former Executive Chair and Chief Executive Officer; Jonathan Gillis, C.P.A., our Senior Vice President, Finance; and Christophe Couturier, our former Chief Financial Officer.

Summary Compensation Table

The following table sets forth the total compensation awarded to, earned by or paid to our Named Executive Officers during the years indicated:

Name and Principal Position	Year	Salary (S)	Bonus (S)	Stock Awards (S)	Option Awards (S)(1)	All Other Compensation (S)(2)	Total (S)
Christopher Kroeger, M.D., M.B.A.(3) <i>Chief Executive Officer</i>	2017	292,127	131,457(4)	—	1,990,080	16,424	2,430,088
Michelle Dipp, M.D., Ph.D. <i>Former Chief Executive Officer and Executive Chair(5)</i>	2017	334,247	75,000(6)	—	359,425	248,714(11)	1,017,386
	2016	478,846	333,000(7)	—	—	18,566	860,412
	2015	—	—	435,794(8)(9)(10)	—	—	435,794
Jonathan Gillis, C.P.A. <i>Senior Vice President, Finance(12)</i>	2017	229,008	187,500(13)	—	51,493	8,977	476,978
Christophe Couturier <i>Former Chief Financial Officer(14)</i>	2017	243,945	155,000(15)	—	175,098	11,163	585,206
	2016	113,846	139,200(16)	357,500(17)	1,035,052	7,014	1,652,612

- (1) These amounts reflect the grant date fair value of stock options computed in accordance with the provisions of ASC 718. The assumptions that we used to calculate these amounts are discussed in Notes 2 and 9 to our financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017.
- (2) This amount reflects the value of life insurance, accidental death and dismemberment, short term disability and long term disability premiums and Company matches under our 401(k) plan.
- (3) Dr. Kroeger's employment with us as Chief Executive Officer Elect commenced on June 21, 2017, and he became Chief Executive Officer on September 1, 2017.
- (4) This amount reflects the awarded portion of Dr. Kroeger's target bonus prorated based his date of commencement of employment with the Company, which was June 21, 2017.
- (5) Dr. Dipp's employment with us as Chief Executive Officer ended on September 1, 2017.
- (6) This amount reflects a \$75,000 retention bonus paid in accordance with Dr. Dipp's employment agreement.
- (7) This amount includes Dr. Dipp's 2016 annual bonus of \$183,000 awarded under our 2016 annual bonus program and a \$150,000 retention bonus paid in accordance with Dr. Dipp's employment agreement.
- (8) Dr. Dipp earned certain portions of performance-based stock units granted in 2014 during 2015. The assumptions used to determine the compensation expense recorded related to the performance-based stock units and other awards are discussed in Notes 2 and 8 to our financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015.
- (9) Includes an additional bonus of \$99,988 for performance in the fiscal year ended December 31, 2014 that was paid in the fiscal year ended December 31, 2015. This bonus was paid in 2,375 fully vested shares of common stock based on the closing price of our common stock on March 3, 2015, the date of Board approval of the bonus amount. After appropriate tax withholdings, Dr. Dipp received 1,477 shares of common stock.
- (10) This amount reflects the grant date fair value, \$335,806, of performance-based restricted stock units that vested on December 31, 2015 computed in accordance with the provisions of ASC 718, excluding the impact of estimated forfeitures. The assumptions that we used to calculate this amount are discussed in Note 8 to our financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015. The grant date fair value of the performance-based restricted stock units granted to Dr. Dipp in 2015, assuming the maximum potential value was achieved, was \$503,709.

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- (11) This amount includes \$241,667 paid pursuant to Dr. Dipp's advisory agreement, along with \$7,047 reflecting the value of life insurance, accidental death and dismemberment, short term disability and long term disability premiums and Company matches under our 401(k) plan.
- (12) Mr. Gillis' employment with us as Principal Financial Officer commenced on June 21, 2017.
- (13) This amount reflects Mr. Gillis' 2017 annual bonus of \$87,500 paid under the 2017 annual bonus program and \$100,000 paid as a retention bonus pursuant to Mr. Gillis' amended employment agreement.
- (14) Mr. Couturier's employment with us as Chief Financial Officer commenced on September 6, 2016 and ended on June 21, 2017.
- (15) This amount consists of \$105,000, which is the prorated portion of Mr. Couturier's target bonus, and a \$50,000 retention bonus, each paid pursuant to Mr. Couturier's severance agreement.
- (16) This amount includes Mr. Couturier's 2016 annual bonus of \$134,200 awarded under our 2016 annual bonus program and a \$5,000 discretionary bonus provided to Mr. Couturier for his efforts in connection with the 2016 restructuring initiative.
- (17) This amount reflects the grant date fair value of time-based restricted stock units computed in accordance with the provisions of ASC 718. The assumptions that we used to calculate this amount are discussed in Note 8 to our financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016.

2017 Fiscal Year Grants Of Individual Awards

The following table shows information regarding grants of non-equity incentive plan awards and grants of equity awards that we made during the fiscal year ended December 31, 2017 to each of our executive officers named in the Summary Compensation Table.

Name	Grant Date	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$)	Grant Date Fair Value of Stock and Option Awards (\$)
Christopher Kroeger, M.D., M.B.A.	6/21/2017	1,783,106(1)	1.46	1,990,080
Michelle Dipp, M.D., Ph.D.	3/2/2017	150,000	1.49	170,139
	6/21/2017	175,000	1.46	189,286
Jonathan Gillis, C.P.A.	1/5/2017	1,000	1.64	1,232
	3/2/2017	15,000	1.49	17,014
	6/21/2017	30,000	1.46	33,248
Christophe Couturier	1/5/2017	100,000	1.64	123,206
	3/2/2017	45,750	1.49	51,892

- (1) Represents a stock option award granted to the executive at the time of commencing employment with the Company.

Outstanding Equity Awards at Fiscal Year End

The following table sets forth information regarding outstanding equity awards held by our Named Executive Officers as of December 31, 2017.

Name	Option Awards			
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$/Sh)	Option Expiration Date
Christopher Kroeger, M.D., M.B.A.	—	1,069,864	1.46(1)	6/20/2027
	—	356,621	1.46(2)	6/20/2027
	—	356,621	1.46(3)	6/20/2027
Michelle Dipp, M.D., Ph.D.	339,313	—	7.80(4)	12/4/2022
	437,500	62,500	8.43(5)	6/12/2024
	150,000	50,000	32.36(6)	12/8/2024
	—	150,000	1.49(7)	3/1/2027
	43,750	131,250	1.46(8)	6/20/2027
Jonathan Gillis, C.P.A.	5,625	—	14.27(9)	9/9/2023
	6,875	625	10.09(10)	3/4/2024
	5,156	2,344	42.10(11)	3/2/2025
	1,750	2,250	6.96(12)	3/2/2026
	375	625	1.64(13)	1/4/2027
	—	15,000	1.49(14)	3/1/2027
	—	30,000	1.46(15)	6/20/2027
Christophe Couturier	25,000	—	1.64(16)	1/27/2018

- (1) This option award vests with respect to 25% of the shares on the first anniversary of the date of grant, which was June 21, 2017, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the date of grant.
- (2) This option award vests with respect to 25% of the shares on January 31, 2018, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the initial vest date.
- (3) This option award vests with respect to 25% of the shares on January 31, 2019, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the initial vest date.
- (4) This option award started vesting on March 31, 2013 and was fully vested as of December 31, 2016.
- (5) This option award started vesting on September 13, 2014 and vests in approximately equal quarterly installments through June 2018.
- (6) This option award vests with respect to 25% of the shares on the first anniversary of the date of grant, which was December 9, 2014, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the date of grant.
- (7) This option award vests with respect to 25% of the shares on the first anniversary of the date of grant, which was March 2, 2017, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the date of grant.

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- (8) This option award vests in approximately equal quarterly installments from the date of grant, which was June 21, 2017, through the second anniversary of the date of grant.
- (9) This option award started vesting on June 17, 2013 and was fully vested as of December 31, 2017.
- (10) This option award vests with respect to 25% of the shares on the first anniversary of the date of grant, which was March 5, 2014, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the date of grant.
- (11) This option award vests with respect to 25% of the shares on the first anniversary of the date of grant, which was March 3, 2015, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the date of grant.
- (12) This option award vests with respect to 25% of the shares on the first anniversary of the date of grant, which was March 3, 2016, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the date of grant.
- (13) This option award vests in approximately equal quarterly installments from the date of grant, which was January 5, 2018, through the second anniversary of the date of grant.
- (14) This option award vests with respect to 25% of the shares on the first anniversary of the date of grant, which was March 2, 2017, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the date of grant.
- (15) This option award vests with respect to 25% of the shares on June 14, 2019, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the initial vest date.
- (16) Mr. Couturier's separation agreement provided that he would have the ability to exercise his 25,000 vested options through January 27, 2018, 180 days past his termination of employment with the Company as of July 31, 2017. The original option expiration date was January 5, 2027.

Option Exercises and Stock Vested in 2017

None of our executive officers named in the Summary Compensation Table exercised any options to purchase our common stock or had any stock awards vest during the fiscal year ended December 31, 2017.

Employment Agreements and Separation Agreements

Christopher Kroeger, M.D., M.B.A.

In connection with his appointment as Chief Executive Officer, on June 21, 2017, the Company entered into an offer letter, or the CEO Agreement, with Dr. Kroeger, pursuant to which he receives an initial annual base salary of \$550,000 per year. In addition, Dr. Kroeger may be awarded an annual discretionary bonus award of up to 60% of his then-current base salary. The bonus award, if any, is determined by the Company's Board or a committee thereof and is based upon the achievement of specific goals, which are determined by the Board.

Pursuant to the CEO agreement, Dr. Kroeger received a stock option to purchase 1,783,106 shares of the Company's common stock at an exercise price equal to the closing price of the common stock on the Nasdaq Global Market on June 21, 2017, the date of grant of the stock option. The stock option will have a ten-year term and will vest over approximately five years and seven months, subject to Dr. Kroeger's continued service with the Company through the applicable vesting dates, pursuant to the following vesting schedule: (i) 1,069,864 of the shares subject to the option will vest over the period from June 21, 2017 to June 21, 2021, with 25% of such shares vesting on June 21, 2018 and 6.25% of such shares vesting each quarter thereafter; (ii) 356,621 of the shares subject to the option will vest

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over the period from June 21, 2017 through January 31, 2022, with 25% of such shares vesting on January 31, 2019 and 6.25% of such shares vesting each quarter thereafter; and (iii) 356,621 of the shares subject to the option will vest over the period from June 21, 2017 through January 31, 2023, with 25% of such shares vesting on January 31, 2020 and 6.25% of such shares vesting each quarter thereafter. In the event of a "change of control," as defined in the CEO Agreement, where Dr. Kroeger's employment is terminated by the Company "without cause," as defined in the CEO Agreement, or Dr. Kroeger resigns "for good reason," as defined in the CEO Agreement, within one year of the change of control, the vesting of the stock options will accelerate in full. This stock option was granted outside of the Company's 2012 Stock Incentive Plan as an inducement material to Dr. Kroeger's acceptance of employment in accordance with Nasdaq Listing Rule 5635(c)(4).

Michelle Dipp, M.D., Ph.D.

In connection with Dr. Dipp's appointment to Executive Chair, on January 5, 2016, OvaScience entered into a five year employment agreement, or the EC Agreement, with Dr. Dipp. Pursuant to the EC Agreement, Dr. Dipp received an annual base salary of \$500,000 per year. In addition, Dr. Dipp had the potential to be awarded an annual target bonus of up to 60% of her then-current annual base salary, provided that the annual bonus could equal up to 90% of her then-current base salary if Dr. Dipp achieved over 100% of her performance objectives. The bonus award, if any, was to be determined by the Company's Board or a committee thereof and was based upon the achievement of specific corporate goals, as determined by the Board or a committee thereof. The EC Agreement was set to expire on December 31, 2020, unless earlier terminated in accordance with its terms.

Pursuant to the EC Agreement, Dr. Dipp's options to purchase common stock outstanding in January 2016 continued to vest pursuant to their existing vesting schedule while Dr. Dipp served as Executive Chair. The unvested portions of Dr. Dipp's time-based and performance-based restricted stock unit awards issued in December 2014 were terminated because these awards were awarded in lieu of cash compensation for Dr. Dipp for fiscal years 2015 and 2016. Dr. Dipp did not receive any new equity grant in connection with entering the EC Agreement. Dr. Dipp's previous employment agreement, which was entered into in December 2014, provided that a tax gross-up would be paid on Dr. Dipp's behalf if any amounts payable by the Company (or a successor) to her became subject to excise taxes under Sections 280G and 4999 of the Internal Revenue Code, the 280G tax gross-up provision. In connection with entering into the EC Agreement, Dr. Dipp agreed to eliminate this 280G tax gross-up provision. The EC Agreement also included a retention agreement that provided that Dr. Dipp was to be entitled to receive \$37,500 on the last day of each quarter ending between March 31, 2016 and December 31, 2017 for so long as Dr. Dipp was employed by OvaScience at the end of the applicable quarter.

The EC Agreement automatically terminated in September 2017 when Dr. Kroeger became Chief Executive Officer. From September 1, 2017 until April 30, 2018, Dr. Dipp served as an advisor to the Company pursuant to the terms of an advisory agreement dated June 21, 2017, or the Advisory Agreement, which took effect (for purposes of all terms other than the stock option grant described below, which was made on June 21, 2017 upon the execution of the Advisory Agreement) simultaneously with the termination of the EC Agreement. The Advisory Agreement was to expire by its terms on December 31, 2018.

Pursuant to the terms of the Advisory Agreement, on June 21, 2017, Dr. Dipp received a stock option to purchase 175,000 shares of the Company's common stock, at an exercise price equal to closing price of the common stock on the Nasdaq Global Market on the date of grant. The stock option has a ten-year term, vesting over two years, with 12.5% of the option shares vested on September 21, 2017 and 12.5% of the option shares vesting at the end of each successive three-month period thereafter until June 21, 2019. Pursuant to the Advisory Agreement, Dr. Dipp (i) was paid \$241,667 for the period from September 1, 2017 to December 31, 2017, which is equivalent to the

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payments Dr. Dipp would have received under the EC Agreement, and (ii) was to be paid a \$250,000 retainer for 2018. Dr. Dipp was also eligible to receive the same discretionary cash bonus for 2017 that she was entitled to under the EC Agreement, which is an annual discretionary bonus award (based on her performance in 2017) of up to 60% of her 2017 annual base salary of \$500,000 under the EC Agreement, provided that the annual bonus could equal up to 90% of \$500,000 if Dr. Dipp achieved over 100% of her 2017 performance objectives. The bonus award, if any, was to be determined by the Board or a committee thereof and would have been based upon the achievement of specific 2017 goals, as determined by the Board.

Pursuant to the Advisory Agreement, Dr. Dipp's currently outstanding options to purchase common stock would continue to vest pursuant to their current vesting schedule while Dr. Dipp served as an advisor. Upon expiration or termination of the Advisory Agreement for any reason, or upon a "change of control event" (as described in the Advisory Agreement), the agreement provided that all of Dr. Dipp's unvested stock options outstanding on the date of termination would vest and be immediately exercisable, and Dr. Dipp would be able to exercise all of her stock options for two years following the date of such termination.

On April 30, 2018, the Company and Dr. Dipp entered into a Termination Agreement with respect to the Advisory Agreement. The Termination Agreement provides that Dr. Dipp shall forego the discretionary cash bonus for fiscal 2017 in the amount of up to \$300,000 to which she was entitled under her Advisory Agreement, as well as the \$250,000 retainer she was entitled to receive for 2018, and that all of her unvested stock options shall become fully vested and remain exercisable until the expiration date of such options.

Jonathan Gillis, C.P.A.

In connection with his promotion to Vice President, Finance, the Company entered into an amended employment agreement with Mr. Gillis on June 14, 2017. Pursuant to the terms of his amended employment agreement, Mr. Gillis received an annual base salary of \$250,000 in 2017 (which was increased to \$270,000 for 2018). Mr. Gillis is also eligible to receive an annual discretionary bonus award of up to 35% of his then-current base salary. The bonus award, if any, will be determined by the Board or a committee thereof and will be based upon the achievement of specific goals, which shall be determined by the Chief Executive Officer in consultation with the Board. Mr. Gillis' employment agreement also provides for a \$100,000 retention bonus to be paid out over the first six months from the date of the agreement, a \$50,000 retention bonus to be paid in December 2018, and a \$50,000 retention bonus to be paid in June 2019. On June 21, 2017, Mr. Gillis also received a stock option to purchase 30,000 shares of the Company's common stock at an exercise price equal to the closing price of the common stock on the Nasdaq Global Market on the date of grant. The stock option has a ten-year term, vesting over four years, with 25% of the option shares vesting on June 14, 2018 and 6.25% of the option shares vesting at the end of each successive three-month period thereafter until June 14, 2021.

Christophe Couturier

Mr. Couturier joined the Company in August 2016, pursuant to the terms of an offer letter in which we agreed to employ Mr. Couturier on an at-will basis. Mr. Couturier's 2016 base salary was \$400,000 pursuant to the terms of our employment agreement with him. Mr. Couturier's base salary was increased to \$420,000 for 2017. Mr. Couturier was eligible to receive an annual bonus of up to 50% of his base salary, as determined by our Board in its sole discretion based on the achievement of performance goals determined by our Chief Executive Officer in consultation with the Board. Mr. Couturier is also bound by the terms of agreements covering non-solicitation, non-competition, confidential information and inventions assignment, which, among other things, prevents him from competing with us during the term of his agreement and for a specified time thereafter.

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The Company entered into a separation agreement with Mr. Couturier dated June 21, 2017 that provided that Mr. Couturier would assist with the transition of his role through July 31, 2017 and receive severance of six months of his base salary, a pro rata bonus of \$105,000, a \$50,000 retention bonus due on June 30, 2017, the ability to exercise 25,000 vested options for up to 180 days past his termination of employment with the Company (the remainder of his equity was terminated), and the monthly premiums for COBRA coverage equal to the amount paid for similarly situated employees for a period of six months following the date of the termination of his employment.

2017 Bonus Payments

On December 5, 2017, the Compensation Committee determined that the Company had achieved 75% of its corporate goals and on February 8, 2018 the Compensation Committee approved cash bonus payments to Dr. Kroeger and Mr. Gillis in the amounts of \$131,457 and \$87,500, respectively. See "Compensation Discussion and Analysis—Elements of Executive Compensation—Annual Bonuses".

Potential Payments upon Termination or Change in Control

We have entered into agreements and maintain certain plans that may require us to make certain payments and/or provide certain benefits to the executive officers named in the Summary Compensation Table that were employed as executives on December 31, 2017 in the event of a termination of employment or a change of control.

Severance and Change of Control Arrangement with Dr. Kroeger

Under the terms of the CEO Agreement, Dr. Kroeger's employment with the Company may be terminated at any time, with or without cause and without any prior notice, by either Dr. Kroeger or the Company. If the Company terminates Dr. Kroeger's employment without cause or Dr. Kroeger terminates his employment for good reason, he will be entitled to receive (a) continuation of his then-current base salary for a period of twelve months, which will be payable in periodic installments over the same period, and (b) continuation of COBRA health insurance premiums at the Company's then-normal rate of contribution during the severance period.

Severance and Change of Control Arrangement with Mr. Gillis

Mr. Gillis' employment with the Company may be terminated at any time, with or without cause and without any prior notice, by either Mr. Gillis or the Company. If the Company terminates Mr. Gillis' employment without cause or Mr. Gillis terminates his employment for good reason, he will be entitled to receive continuation of his then-current base salary for a period of six months, which will be payable in periodic installments over the same period, as well as payment in a lump sum of any amount of his retention bonuses described above that have not been paid on such date.

Defined Terms in Severance and Change of Control Agreements

As defined in Dr. Kroeger's employment agreement:

"Cause" constitutes the following: (a) a good faith finding by the Company (i) of failure of (which failure is not cured within ten (10) days of receiving written notice thereof from the Company) or refusal by the employee to perform his or her duties and responsibilities to the Company, or (ii) that the employee has engaged in dishonesty, gross negligence or misconduct, which dishonesty, gross negligence or misconduct has caused harm or damage to the business, affairs or reputation of the Company; (b) the commission by the employee of, the conviction of the employee of, or the entry of a pleading of guilty or nolo contendere by the employee to any crime involving moral turpitude or any felony; or (c) a breach by the employee of any provision of the employee's offer letter or any invention and non-disclosure agreement or non-competition and non-solicitation agreement with the Company,

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which breach is not cured within ten (10) days written notice thereof. A determination to terminate the employee's employment for Cause (a) must be made in the reasonable discretion of the Board, and (b) may not be made unless the employee has been given, where feasible, possible, and practical under the circumstances, a reasonable opportunity to present his position to the Board in person or in a teleconference.

A "*Change of Control Event*" shall be deemed to exist upon the sale of all or substantially all of the outstanding shares of capital stock, assets or business of the Company, by merger, consolidation, sale of assets or otherwise (other than a transaction in which all or substantially all of the individuals and entities who were beneficial owners of the capital stock of the Company immediately prior to such transaction beneficially own, directly or indirectly, more than 50% of the outstanding securities (on an as-converted to Common Stock basis) entitled to vote generally in the election of directors of the (a) resulting, surviving or acquiring corporation in such transaction in the case of a merger, consolidation or sale of outstanding shares, or (b) acquiring corporation in the case of a sale of assets); *provided that*, in each of the foregoing cases, the Change in Control Event also meets all of the requirements of a "change in the ownership of a corporation" within the meaning of Treasury Regulation §1.409A-3(i)(5)(v) or "a change in the ownership of a substantial portion of the corporation's assets" within the meaning of Treasury Regulation §1.409A-3(i)(5)(vii).

"*Good Reason*" shall be deemed to exist upon:

- (a) the relocation of the Company's offices such that the employee's daily commute is increased by at least forty (40) miles each way without the consent of the employee;
- (b) material reduction of the employee's annual base salary without the prior consent of the employee (other than in connection with, and substantially proportionate to, reductions by the Company of the annual base salary of more than 50% of its employees); or
- (c) material diminution in employee's duties, authority or responsibilities without the prior consent of the employee, other than changes in duties, authority or responsibilities resulting from the employee's misconduct;

provided, however, that (i) no such event or condition shall constitute Good Reason unless (x) the employee gives the Company a written notice of termination for Good Reason not more than ninety (90) days after the initial existence of the condition, (y) the grounds for termination if susceptible to correction are not corrected by the Company within thirty (30) days of its receipt of such notice and (z) the employee's termination of employment occurs within six months following the Company's receipt of such notice; and (ii) at all times "Good Reason" will be interpreted in a manner consistent with the definition of "good reason" within the meaning of Section 409A (as defined in the CEO Agreement).

As defined in Mr. Gillis' employment agreement:

"*Cause*" for termination shall be deemed to exist upon:

- (a) a good faith finding by the Company (i) of failure of or refusal by the employee to perform his or her duties and responsibilities to the Company, or (ii) that the employee has engaged in dishonesty, gross negligence or misconduct, which dishonesty, gross negligence or misconduct has caused harm or damage to the business, affairs or reputation of the Company;
- (b) the commission by the employee of, the conviction of the employee of, or the entry of a pleading of guilty or nolo contendere by the employee to any crime involving moral turpitude or any felony; or

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(c) a breach by the employee of any provision of any invention and non-disclosure agreement or non-competition and non-solicitation agreement with the Company, which breach is not cured within ten (10) days written notice thereof.

A "Change in Control Event" shall be deemed to exist upon the sale of all or substantially all of the outstanding shares of capital stock, assets or business of the Company, by merger, consolidation, sale of assets or otherwise (other than a transaction in which all or substantially all of the individuals and entities who were beneficial owners of the capital stock of the Company immediately prior to such transaction beneficially own, directly or indirectly, more than 50% of the outstanding securities (on an as-converted to Common Stock basis) entitled to vote generally in the election of directors of the (i) resulting, surviving or acquiring corporation in such transaction in the case of a merger, consolidation or sale of outstanding shares, or (ii) acquiring corporation in the case of a sale of assets); *provided that*, in each of the foregoing cases, the Change in Control Event also meets all of the requirements of a "change in the ownership of a corporation" within the meaning of Treasury Regulation §1.409A-3(i)(5)(v) or "a change in the ownership of a substantial portion of the corporation's assets" within in the meaning of Treasury Regulation §1.409A-3(i)(5)(vii).

"Good Reason" shall be deemed to exist upon:

(a) the relocation of the Company's offices such that the employee's daily commute is increased by at least forty (40) miles each way without the consent of the employee;

(b) material reduction of the employee's annual base salary without the prior consent of the employee (other than in connection with, and substantially proportionate to, reductions by the Company of the annual base salary of more than 50% of its employees); or

(c) material diminution in employee's duties, authority or responsibilities without the prior consent of the employee, other than changes in duties, authority or responsibilities resulting from the employee's misconduct;

provided, however, that (i) no such event or condition shall constitute Good Reason unless (x) the employee gives the Company a written notice of termination for Good Reason not more than ninety (90) days after the initial existence of the condition, (y) the grounds for termination if susceptible to correction are not corrected by the Company within thirty (30) days of its receipt of such notice and (z) the employee's termination of employment occurs within six months following the Company's receipt of such notice; and (ii) at all times "Good Reason" will be interpreted in a manner consistent with the definition of "good reason" within the meaning of Section 409A (as defined in Mr. Gillis's employment agreement).

Potential Payments Upon Termination (as of December 31, 2017)

The following table summarizes the potential payments to our Named Executive Officers under the severance and change of control agreements assuming that a termination occurred under the circumstances set forth in the column headings. The information presented assumes that the termination occurred on December 31, 2017, the last business day of our most recently completed fiscal

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year. The closing price of our common stock as listed on the Nasdaq Global Market on December 29, 2017, the last trading day of our fiscal year, was \$1.37 per share.

Name	Executive Payments and Benefits upon Termination	Termination without Cause or Resignation for Good Reason	Termination without Cause or Resignation for Good Reason within One Year Following a Change of Control
Christopher Kroeger, M.D., M.B.A. <i>Chief Executive Officer</i>	Base salary	\$ 550,000	\$ 550,000
	Acceleration of Vesting of Equity	—	100%
	Number of Vesting In-The-Money Stock Options and Value upon Termination	—	—
	Cobra Benefits	\$ 21,876	\$ 21,876
	Total	\$ 571,876	\$ 571,876
Jonathan Gillis, C.P.A. <i>Senior Vice President, Finance</i>	Base Salary	\$ 125,000	\$ 125,000
	Acceleration of Vesting of Certain Equity	—	100%
	Number of Vesting In-The-Money Stock Options and Value upon Termination	—	—
	Cobra Benefits	\$ 13,890	\$ 13,890
	Total	\$ 138,890	\$ 138,890

For a description of the actual amounts received by Dr. Dipp following her resignation, see "Employment Agreements and Separation Agreements—Michelle Dipp, M.D., Ph.D." above.

For a description of the actual amounts received by Mr. Couturier following his resignation, see "Employment Agreements and Separation Agreements—Christopher Couturier" above.

401(k) Retirement Plan

We maintain a defined contribution employee retirement plan for our employees. Our 401(k) plan is intended to qualify as a tax-qualified plan under Section 401 of the Code, so that contributions to our 401(k) plan, and income earned on such contributions, are not taxable to participants until withdrawn or distributed from the 401(k) plan. Our 401(k) plan provides that each participant may contribute up to 100% of his or her pre-tax compensation, up to a statutory limit, which is \$18,000 for 2017. Participants who are at least 50 years old can also make "catch-up" contributions, which in 2017 may be up to an additional \$6,000 above the statutory limit. Under our 401(k) plan, each employee is fully vested in his or her deferred salary contributions. Employee contributions are held and invested by the plan's trustee. Our 401(k) plan also permits us to make discretionary contributions and matching contributions, subject to established limits and a vesting schedule. Beginning in January 2012, we made an employer matching contribution equal to (1) 100% of employee deferral contributions up to a deferral rate of 3% of compensation plus (2) 50% of employee deferral contributions up to a deferral rate of an additional 2% of compensation.

Securities Authorized for Issuance Under Our Equity Compensation Plans

The following table sets forth information regarding our equity compensation plans as of December 31, 2017.

Plan Category	Number of Securities to Be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights (\$)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans
Equity compensation plans approved by security holders(1)	3,962,709	10.09	1,971,525
Equity compensation plans not approved by security holders(2)	1,783,106	1.46	—
Total	5,745,815		1,971,525

- (1) This plan category consists of our 2012 and 2011 Stock Incentive Plans.
- (2) This plan category consists of an inducement grant provided to Dr. Kroeger, our Chief Executive Officer, pursuant to the terms of our stock option agreement with him (as discussed below).

Stock Option Agreement with Dr. Kroeger

Pursuant to a Stock Option Agreement with Dr. Kroeger, dated June 21, 2017, Dr. Kroeger was granted an option to purchase up to 1,783,106 shares of common stock at a price per share of \$1.46, as a material inducement to his entering into employment with us. The grant has a term of ten years and vests over five years and seven months, subject to continued service with the Company through the applicable vesting dates, pursuant to the following vesting schedule: (i) 1,069,864 of the shares subject to option will vest over the period from June 21, 2017 to June 21, 2021: with 25% of such shares vesting on June 21, 2018 and 6.25% of such shares vesting each quarter thereafter; (ii) 356,621 of the shares subject to option will vest over the period from June 21, 2017 through January 31, 2022, with 25% of such shares vesting on January 31, 2019 and 6.25% of such shares vesting each quarter thereafter; and (iii) 356,621 of the shares subject to the option will vest over the period from June 21, 2017 through January 31, 2023, with 25% of such shares vesting on January 31, 2020 and 6.25% of such shares vesting each quarter thereafter.

CEO Pay Ratio

Following is a reasonable estimate, prepared under Securities and Exchange Commission rules, of the ratio of the annual total compensation of our Chief Executive Officer to the median of the annual total compensation of our other employees. We determined our median employee based on taxable wages (annualized in the case of full- and part-time employees who joined the Company during 2017) of each of our 33 employees (excluding the Chief Executive Officer) as of December 31, 2017. The annual total compensation of our median employee (other than the Chief Executive Officer) for 2017 was \$121,722. As reported in the Summary Compensation Table on page 34, our Chief Executive Officer's annual total compensation for 2017 was \$2,430,088. Based on the foregoing, our estimate of the ratio of the annual total compensation of our CEO to the median of the annual total compensation of all other employees was 20.0 to 1. Given the different methodologies that various public companies will use to determine an estimate of their pay ratio, the estimated ratio reported above should not be used as a basis for comparison between companies.

DIRECTOR COMPENSATION

Our director compensation program is administered by our Board with the assistance of the Compensation Committee. The Compensation Committee conducts an annual review of director compensation and makes recommendations to the Board with respect thereto.

Based on the recommendation of our Compensation Committee, our Board adopted an amended and restated non-employee director compensation policy in 2015 (the "2015 policy"). As described below in Proposal 4, based on the recommendation of our Compensation Committee in 2018, the Board has approved a new 2018 Non-Employee Director Compensation Policy. If the 2018 Non-Employee Director Compensation Policy is approved by stockholders at the Annual Meeting, the compensation for our non-employee directors in 2018 will be as described in Proposal 4. Under the 2015 policy, our non-employee directors were compensated for service on our Board as follows in 2017:

- an annual retainer for our non-employee directors for service on our Board of \$35,000;
- for members of the Audit Committee, an annual fee of \$8,000 (\$15,000 for the chair);
- for members of the Nominating and Corporate Governance Committee, an annual fee of \$3,750 (\$7,500 for the chair);
- for members of the Compensation Committee, an annual fee of \$5,000 (\$10,000 for the chair);
- to each newly elected director, an initial grant of a stock option to purchase 8,650 shares of our common stock, at an exercise price equal to the fair market value of our common stock on the date of grant, which option shall vest monthly over one year; and
- for continuing service on our Board, an annual grant of a stock option to purchase 12,000 shares of our common stock, at an exercise price equal to the fair market value of our common stock on the date of grant, which option shall vest monthly over one year.

Subject to the director's continued service as a director, the initial and annual stock option grants vest in approximately equal monthly installments through the first anniversary of the grant date. The initial stock option grants were made on the date of each director's initial appointment or election to the Board.

Under the 2015 policy, we reimbursed our non-employee directors for their reasonable expenses incurred in connection with attending our Board and committee meetings upon presentation of documentation of such expenses reasonably satisfactory to us.

Under the 2015 policy, our non-employee directors may elect to receive all or a portion of their annual fees for Board and committee service from January 1 to December 31 of a given year in either cash or fully vested shares of our common stock. This election occurs on an annual basis.

The following table sets forth information regarding the total compensation awarded to, earned by or paid to each of our non-employee directors during the year ended December 31, 2017 for their service on our Board. Dr. Kroeger, our Chief Executive Officer, and Dr. Dipp, our former Executive Chair, did not receive any additional compensation for service as a director during 2017. The

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compensation that we paid to Dr. Dipp and that we pay to Dr. Kroeger is discussed under "Executive Compensation" above.

<u>Name</u>	<u>Fees Earned or Paid in Cash \$(1)</u>	<u>Option Awards \$(2)(3)</u>	<u>Total (\$)</u>
Richard Aldrich	42,500	12,395	54,895
Jeffrey D. Capello	50,000	12,395	62,395
Mary Fisher	40,000	12,395	52,395
Marc Kozin	68,750(4)	12,395	81,145
Thomas Malley	53,000	—	53,000
John Sexton, Ph.D.	155,000(5)	12,395	167,395
John Howe, III, M.D.	170,500(5)	12,395	182,895

- (1) Includes payment of annual fees for Board and committee service in fully vested shares of our common stock in lieu of cash to Mr. Aldrich (\$42,500), Ms. Fisher (\$20,000), Mr. Kozin (\$38,750) and Mr. Malley (\$53,000). Each payment is made at the end of each quarter based on the closing price of the Company's common stock on the last day of the quarter.
- (2) The amounts in the "Option Awards" column reflect the aggregate grant date fair value of stock options granted during the year computed in accordance with the provisions of ASC 718. The assumptions that we used to calculate these amounts are discussed in Notes 2 and 9 to our financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017.
- (3) As of December 31, 2017, our non-employee directors held options to purchase the following aggregate numbers of shares (representing both exercisable and unexercisable options): All options held by our non-employee directors as of December 31, 2017 have exercise prices which are greater than the April 27, 2018 closing price of our common stock of \$0.9006.

<u>Name</u>	<u>Number of Shares Underlying Outstanding Stock Options</u>
Richard Aldrich	46,948
Jeffrey D. Capello	60,046
Mary Fisher	55,598
Marc Kozin	54,400
Thomas Malley	—
John Sexton, Ph.D.	44,650
John Howe, III, M.D.	44,650

- (4) Includes \$30,000 for additional Board services, as approved by the Board, in guiding the Company in its long-term global regulatory strategy, which services he continues to provide on the Global Strategy Committee.
- (5) Represents (i) annual fees earned for service on the Board of Directors of \$35,000 and \$50,500 for Drs. Sexton and Howe, respectively and (ii) \$120,000 for additional Board services, as approved by the Board, in providing long-term strategic global regulatory guidance, which services Drs. Sexton and Howe continue to provide on the Global Strategy Committee.

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Mr. Kozin and Drs. Sexton and Howe receive compensation as members of the Global Strategy Committee. The Global Strategy Committee supports the Board in providing board level strategic global regulatory guidance to the Chief Executive Officer and executive management team. The Global Strategy Committee's responsibilities include:

- advising the Chief Executive Officer and executive management team generally on global strategy, as well as on the development and implementation of the Company's strategic plan; and
- advising the Chief Executive Officer and executive management team on strategies for approaching international markets, including guidance on cultural, regulatory and government affairs matters.

For their service on the Global Strategy Committee, Mr. Kozin receives monthly retainer payments of \$2,500 and Drs. Sexton and Howe receive monthly retainer payments of \$10,000.

AUDIT RELATED MATTERS

Audit Committee Report

The Audit Committee of the Board of OvaScience, Inc., which consists entirely of directors who meet the independence and experience requirements of The Nasdaq Stock Market, has reviewed OvaScience's audited financial statements for the fiscal year ended December 31, 2017 and discussed them with management and the Company's independent auditors, Ernst & Young LLP, an independent registered public accounting firm.

The Audit Committee has received from, and discussed with, Ernst & Young LLP various communications that Ernst & Young LLP is required to provide to the Audit Committee, including the matters required to be discussed by Auditing Standard No. 16—*Communications with Audit Committees*.

The Audit Committee has received the written disclosures and the letter from Ernst & Young LLP required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accounting firm's communications with the Audit Committee concerning independence, and has discussed with the Company's independent registered public accounting firm its independence.

Based on the review and discussions referred to above, the Audit Committee recommended to the OvaScience Board that the audited financial statements referred to above be included in OvaScience's Annual Report on Form 10-K for the fiscal year ended December 31, 2017.

By the Audit Committee of the Board of OvaScience, Inc.

Jeffrey D. Capello (Chair)
Marc Kozin
John Howe, III, M.D.

Audit Fees and Services

The following table summarizes the fees of Ernst & Young LLP, our independent registered public accounting firm, billed to us for each of the last two fiscal years.

<u>Fee Category</u>	<u>2017</u>	<u>2016</u>
Audit Fees	\$ 664,179	\$ 766,846
Audit-Related Fees	304,089	—
Tax Fees	73,488	446,506
All Other Fees	1,655	1,800
Total Fees	\$ 1,043,411	\$ 1,225,110

Audit Fees

Audit fees are fees related to professional services rendered in connection with the audit of our annual financial statements, the reviews of the interim financial statements included in each of our quarterly reports on Form 10-Q, the reviews of financial statements included in any registration statements we file with the SEC and other professional services provided by our independent registered public accounting firm in connection with statutory or regulatory filings or engagements, and the audit of our internal control over financial reporting required by Section 404 of the Sarbanes-Oxley Act of 2002.

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Audit-Related Fees

Audit-related fees are fees for assurance and related services that are reasonably related to performance of the audit and review of financial statements, and which are not reported under "Audit Fees."

Tax Fees

Tax fees are fees for professional services for tax compliance, tax advice and tax planning services.

All Other Fees

Other fees include licensing fees that we paid to PricewaterhouseCoopers and Ernst & Young LLP in 2017 and 2016, respectively for access to their proprietary accounting research database.

All of the foregoing accountant services and fees were pre-approved by our Audit Committee in accordance with the policies and procedures described under "—Policy for Approval of Services" below.

Policy for Approval of Services

The Audit Committee of our Board has adopted policies and procedures for the pre-approval of audit and non-audit services for the purpose of maintaining the independence of our independent auditor. We may not engage our independent auditor to render any audit or non-audit service unless the service is approved in advance by the Audit Committee. Notwithstanding the foregoing, pre-approval is not required with respect to the provision of services, other than audit, review or attest services, by the independent auditor if the aggregate amount of all such services is no more than 5% of the total amount paid by us to the independent auditor during the fiscal year in which the services are provided, such services were not recognized by us at the time of the engagement to be non-audit services, and such services are promptly brought to the attention of the Audit Committee and approved prior to completion of the audit by the Audit Committee.

MATTERS TO BE VOTED ON

Proposal 1: Election of Class III Directors

At the Annual Meeting, stockholders will vote to elect two class III directors, each to serve a three-year term beginning at the Annual Meeting and ending at our 2021 Annual Meeting of stockholders. Our Board has nominated Dr. Kroeger and Mr. Capello for election as class III directors at the Annual Meeting.

Pursuant to our certificate of incorporation and by-laws, our Board is divided into three classes, with each class having as nearly as possible an equal number of directors. The term of service of each class of directors is staggered so that the term of one class expires at each Annual Meeting of the stockholders. Upon the expiration of the term of a class of directors, directors in that class are eligible to be elected for a new three-year term at the Annual Meeting of stockholders in the year in which their term expires. Our Board currently consists of seven members, divided into three classes as follows:

- class I consists of Dr. Howe and Mr. Kozin, each with a term expiring at the 2019 annual meeting of stockholders;
- class II consists of Mr. Aldrich, Ms. Fisher and Dr. Sexton, each with a term expiring at the 2020 annual meeting of stockholders; and
- class III consists of Dr. Kroeger and Mr. Capello, each with a term expiring at the 2018 annual meeting of stockholders.

Dr. Kroeger and Mr. Capello are current directors whose terms expire at the Annual Meeting. Dr. Kroeger and Mr. Capello are both nominated for re-election as a class III director, with a term ending in 2021. A brief biography of each director nominee is set forth starting on page 9 of this proxy statement. You will find information about their stock holdings in OvaScience below under "Ownership of Our Common Stock—Security Ownership of Certain Beneficial Owners and Management."

Unless contrary instructions are provided, the persons named as proxies will, upon receipt of a properly executed proxy, vote for the election of Dr. Kroeger and Mr. Capello as class III directors for a term expiring at our 2021 Annual Meeting of stockholders. Proxies cannot be voted for a greater number of persons than the number of nominees named. Each of the nominees is currently a member of our Board. Each of the nominees has indicated his or her willingness to serve on our Board, if elected. If any nominee should be unable to serve, proxies may be voted for a substitute nominee designated by our Board. We do not contemplate that any of the nominees will be unable to serve if elected.

Directors are elected by a plurality of the votes of the shares present in person or represented by proxy at the Annual Meeting and entitled to vote, which means that the two nominees receiving the most "FOR" votes will be elected.

Board Recommendation

Our Board recommends that you vote *FOR* the election of each of the nominees as a class III director.

Proposal 2: Ratification of Appointment of Independent Auditors

The Audit Committee of our Board has appointed the firm of Ernst & Young LLP, an independent registered public accounting firm, as our independent auditors for the current fiscal year. Ernst & Young LLP has served as our independent auditors since January 2012. Although stockholder approval of the appointment of Ernst & Young LLP is not required by law, our Audit Committee believes it is advisable and has decided to give our stockholders the opportunity to ratify this appointment. If this proposal is not approved at the Annual Meeting, our Audit Committee may reconsider this appointment.

The affirmative vote of a majority of votes cast affirmatively or negatively on the matter is required to approve this proposal.

Representatives of Ernst & Young LLP are expected to be present at the Annual Meeting and will have the opportunity to make a statement if they desire to do so. It is also expected that they will be available to respond to appropriate questions from stockholders.

Board Recommendation

Our Board recommends that you vote *FOR* the ratification of Ernst & Young LLP as our independent auditors for the fiscal year ending December 31, 2018.

Proposal 3: Advisory Vote to Approve the Compensation of Named Executive Officers

As required by Section 14A of the Securities Exchange Act of 1934, we are seeking your approval, on an advisory basis, of the compensation of our Named Executive Officers as described in the Compensation Discussion and Analysis, the compensation tables and related material contained in this proxy statement. Because your vote is advisory, it will not be binding on our Compensation Committee or our Board. However, the Compensation Committee and the Board will review the voting results and take them into consideration when making future decisions regarding executive compensation. The next advisory vote to approve the compensation of Named Executive Officers will occur at the 2019 annual meeting of stockholders.

We have a pay-for-performance philosophy whereby actual compensation levels are correlated to the achievement of corporate and individual goals. We believe that our executive compensation programs are strongly aligned with our performance on both a short-term and long-term basis, linked to results intended to create value for stockholders, and that such compensation assists us in attracting and retaining key executives critical to our long-term success. Consistent with this philosophy, a significant portion of the total compensation opportunity for each of our executives is directly related to performance factors that measure our progress against the goals of our strategic and operating plans.

Stockholders are urged to read the Compensation Discussion and Analysis section of this proxy statement, which discusses how our compensation policies and procedures implement our compensation philosophy. The Compensation Committee and the Board believe that these policies and procedures are effective in implementing our compensation philosophy and in achieving its goals.

In accordance with the rules of the SEC, the following resolution, commonly known as a "say-on-pay" vote, is being submitted for a stockholder vote at the Annual Meeting:

"RESOLVED, that the compensation paid to the Named Executive Officers of the Company, as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, the compensation tables and the related material disclosed in this proxy statement, is hereby APPROVED."

The affirmative vote of a majority of votes cast affirmatively or negatively on the matter is required to approve, on an advisory basis, this proposal.

Board Recommendation

Our Board recommends that you vote *FOR* the approval, on an advisory basis, of the compensation of our Named Executive Officers.

Proposal 4: Approval of the 2018 Non-Employee Director Compensation Policy

We are asking our stockholders to approve the 2018 Non-Employee Director Compensation Policy (the "Director Compensation Policy"), which will provide for cash and equity compensation for our non-employee directors and will impose an annual limit on the aggregate cash and equity compensation that may be awarded to non-employee directors by the Company.

The following summary of the material terms of the Director Compensation Policy is qualified in its entirety by reference to the full text of the Director Compensation Policy, a copy of which is attached as Appendix A to this proxy statement and which is incorporated by reference into this proposal.

Compensation Payable for Calendar Year 2018

The Director Compensation Policy provides that each non-employee director shall be entitled to the payments described below while serving as a director for calendar year 2018. After calendar year 2018, these retainers, fees and grants may be modified for years after 2018 by the Compensation Committee or the Board in their discretion, subject to the general compensation limits described above.

<i>Annual Base Retainer:</i>	An annual base retainer fee of \$35,000 shall be payable to each non-employee director.
<i>Committee Chair Fee:</i>	The corresponding annual chair fee set forth below shall also be payable to each non-employee director who becomes or remains the chair of each of the following committees of the Board.
	Audit Committee: \$ 15,000
	Compensation Committee: \$ 10,000
	Nominating and Corporate Governance Committee: \$ 7,500
<i>Committee Membership Fee:</i>	The corresponding annual committee fee set forth below shall also be payable to each non-employee director who becomes or remains a member of the following committees of the Board for his or her committee member services.
	Audit Committee: \$ 8,000
	Compensation Committee: \$ 5,000
	Nominating and Corporate Governance Committee: \$ 3,750

In addition, the members of the Board's Global Strategy Committee will receive monthly retainer payments, as determined in the sole discretion of the Board.

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In addition to the above fees, the Board may determine that additional committee fees are appropriate and should be payable for any newly created committee of the Board.

Initial Equity Grant for Newly Appointed Non-Employee Directors: Each newly appointed non-employee director shall be granted a non-qualified stock option to purchase 8,650 shares of our common stock under the 2012 Stock Incentive Plan, or any successor plan (the "Stock Plan"), at the first regularly scheduled meeting of the Board on or after his or her initial appointment or election to the Board.

Annual Equity Grant for Incumbent Non-Employee Directors: Annually, each incumbent non-employee director shall be granted a non-qualified stock option to purchase 12,000 shares of our common stock under the Stock Plan on the date of the first meeting of the Board held following our annual meeting of stockholders.

During calendar year 2018, the Company will not provide additional compensation to non-employee directors, other than as provided under the Director Compensation Policy, unless such additional compensation is in exchange for bona fide services or is otherwise reviewed and approved in accordance with the Company's Policy regarding Related Person Transactions then in effect.

Holding Period for Shares

Shares purchased upon exercise of an initial equity grant or annual equity grant under the Director Compensation Policy will be subject to a resale restriction ending on the earlier of such non-employee director's termination of service as a non-employee director and the seven-year anniversary of the date of grant of the option (the "Holding Period"); provided, however, that the Holding Period will not apply to (i) any shares retained by the Company as a result of any net exercise of the options to cover the option exercise price, or (ii) any shares sold by the non-employee director to cover any taxes associated with the exercise of the option. The Holding Period requirement will apply to initial equity grants and annual equity grants made through December 31, 2021, unless otherwise amended and approved by a vote of our stockholders.

Aggregate Limits on Compensation

The Director Compensation Policy provides that, commencing in calendar year 2018, (i) the total annual compensation, including all cash and equity components (based on grant date fair value), paid to any incumbent non-employee director shall not exceed \$300,000 per calendar year, and (ii) the total annual compensation, including all cash and equity components (based on grant date fair value), paid to any newly appointed non-employee director shall not exceed \$600,000 within the calendar year of first being appointed. These limits will remain in effect until December 31, 2021, unless otherwise amended and approved by a vote of our stockholders.

Option Grant Terms

Unless otherwise specified by the Board or the Compensation Committee at the time of grant, all options granted under the Director Compensation Policy shall (i) vest in equal monthly installments at the end of each successive month following the grant date until the first anniversary of the grant date, subject to the non-employee director's continued service on the Board; (ii) have an exercise price equal to the fair market value of the Company's common stock as determined in the Stock Plan on the grant date; (iii) terminate ten years after the grant date; and (iv) contain such other terms and conditions as

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set forth in the form of option agreement approved by the Board or the Compensation Committee prior to the grant date.

Additional Terms and Federal Tax Considerations

Our non-employee directors may elect to receive all or a portion of their annual fees for Board and committee service for a given year in the form of vested shares of our common stock (based on the fair market value of our common stock).

Upon presentation of documentation of such expenses reasonably satisfactory to the Company, we will reimburse our non-employee directors for their reasonable expenses incurred in connection with attending our Board and committee meetings.

A non-qualified option ordinarily will not result in income to the non-employee director or deduction to us at the time of grant. The non-employee director will recognize compensation income at the time of exercise of the option in an amount equal to the excess of the then value of the shares over the option price per share. A deduction may then be allowable to us in an amount equal to the director's compensation income. A non-employee director's initial basis in shares so acquired will be the amount paid on exercise of the option plus the amount of any corresponding compensation income. Any gain or loss as a result of a subsequent disposition of the shares will be capital gain or loss. Changes to applicable tax laws could alter these tax consequences, and this summary assumes that the options are exempt from or comply with, the rules under Section 409A of the Internal Revenue Code related to nonqualified deferred compensation.

Further Amendment to the Director Compensation Policy

As is the Company's current practice, in enacting or proposing any further amendments to the Director Compensation Policy, including any amendment of the general compensation limits or the annual retainers, fees and grants, the Board or the Compensation Committee will assess, and be guided by, an analysis of compensation paid to non-employee directors of a peer group of companies as well as current best practices.

Rationale for the Director Compensation Policy

The proposed Director Compensation Policy is designed to align the Company's policies with respect to non-employee director compensation with evolving governance and compensation practices, as well as to attract and retain qualified independent directors to our Board. Specifically, in establishing the aggregate limits on compensation payable, the mix of cash and equity-based compensation, and the Holding Period requirement with respect to shares purchased upon exercise of options granted under the Director Compensation Policy, the Compensation Committee worked with its independent compensation consultant, Pearl Meyer and Partners LLC, to identify compensation trends in non-employee director compensation and amounts payable to non-employee directors by peer companies. The Company's currently identified peer group is listed in the Compensation Discussion and Analysis section of this proxy statement on page 22. The compensation payable for calendar year 2018 under the proposed Director Compensation Policy is in line with the median of peer non-employee director compensation programs presented by Pearl Meyer, and the new Holding Period required for the option shares is a leading practice among those presented programs. Our Board believes the proposed approach to compensation appropriately aligns the interests of our non-employee directors and our stockholders in the future success of the Company, while assuring we do not provide excessive compensation.

The closing price of our common stock on the Nasdaq Global Market on April 27, 2018 was \$0.9006.

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New Plan Benefits

No cash or equity compensation has yet been issued under the Director Compensation Policy. If the Director Compensation Policy is approved by our stockholders, in 2018 our current non-employee directors will receive the cash compensation described above for 2018 with respect to their Board service and their service on the various committees on which they serve. In addition, each current non-employee director will receive the annual equity grant for incumbent directors on the date of the first meeting of the Board held following the Annual Meeting.

Required Vote and Board Recommendation

The Board urges you to approve the Director Compensation Policy as it believes it to be in the best interests of the Company and its stockholders.

The affirmative vote of stockholders present in person or represented by proxy at the Annual Meeting representing a majority of the shares of common stock present in person or represented by proxy at the Annual Meeting, entitled to vote and voting on the proposal is required to approve the Director Compensation Policy. Abstentions and broker non-votes are not taken into account in determining the outcome of this vote.

Our Board recommends that you vote *FOR* the approval of the 2018 Non-Employee Director Compensation Policy.

OWNERSHIP OF OUR COMMON STOCK

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth, as of April 27, 2018, certain information concerning the beneficial ownership of our capital stock by:

- each director;
- each Named Executive Officer;
- all of our executive officers and directors as a group; and
- each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of any class of our outstanding stock.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our common stock. Shares of our common stock subject to options that are currently exercisable or exercisable within 60 days of April 27, 2018 are considered outstanding and beneficially owned by the person holding the options or restricted stock units, as applicable, for the purpose of calculating the percentage ownership of that person but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, we believe the persons and entities in this table have sole voting and investing power with respect to all of the shares of our common stock beneficially owned by them, subject to community property laws,

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where applicable. The inclusion of any shares in this table does not constitute an admission of beneficial ownership by the person named below.

Name and Address of Beneficial Owner(1)	Shares of Common Stock Beneficially Owned(2)	Percentage of Common Stock Beneficially Owned(3)
Directors and Executive Officers		
Christopher Kroeger, M.D., M.B.A.	267,466(4)	*
Michelle Dipp, M.D., Ph.D.	2,120,609(5)	5.7%
Jonathan Gillis, C.P.A.	34,280(6)	*
Christophe Couturier	—(7)	*
Richard Aldrich	2,049,048(8)	5.7%
Jeffrey D. Capello	71,157(9)	*
Mary Fisher	81,532(10)	*
Marc Kozin	114,742(11)	*
John Sexton, Ph.D.	44,650(12)	*
John Howe, III, M.D..	44,650(13)	*
All current executive officers and directors as a Group (9 persons)	2,707,525(14)	7.4%
5% Stockholders		
Entities affiliated with FMR LLC 245 Summer Street Boston, MA 02110	3,574,014(15)	10.0%
BML Investment Partners, L.P. 9 4th Avenue Waltham, Massachusetts	2,300,000(16)	6.4%
Entities affiliated with AIGH Investment Partners, L.P. 6006 Berkeley Avenue Baltimore MD 21209	2,200,000(17)	6.2%
Entities affiliated with Prudential Financial, Inc. 751 Broad Street Newark, NJ 07102	2,183,527(18)	6.1%
BlackRock, Inc. 55 East 52 nd Street New York, NY 10055	1,770,857(19)	5.0%

* Less than 1%.

- (1) Unless otherwise indicated, the address of such individual is c/o OvaScience, Inc., 9 Fourth Avenue, Waltham, Massachusetts 02451.
- (2) Applicable number of shares of stock beneficially owned is calculated as of April 27, 2018.
- (3) Applicable percentage ownership is based on 35,758,907 shares of our common stock outstanding as of April 27, 2018.
- (4) Consists of options to purchase an aggregate of 267,466 shares of common stock held by Dr. Kroeger that are exercisable within 60 days of April 27, 2018.
- (5) Consists of (a) 971,921 shares of common stock held by Dr. Dipp and (b) options to purchase an aggregate of 1,148,688 shares of common stock held by Dr. Dipp that, as of April 27, 2018, were exercisable within 60 days of April 27, 2018. On April 30, 2018, the Company and Dr. Dipp entered into a Termination Agreement with respect to the Advisory Agreement, which provides that all of her unvested stock options shall become fully vested and remain exercisable until the

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expiration date of such options. Giving effect to the Termination Agreement, as of April 30, 2018, Dr. Dipp's beneficial ownership will consist of 2,336,234 shares, which represent 6.3% percent of the common stock beneficially owned.

- (6) Consists of options to purchase an aggregate of 34,280 shares of common stock held by Mr. Gillis that are exercisable within 60 days of April 27, 2018.
- (7) Mr. Couturier does not beneficially own any shares of common stock.
- (8) Consists of (a) 41,852 shares of common stock held directly by Mr. Aldrich, (b) 330,000 shares of common stock held by Little Eagles, LLC, whose owners are Richard H. Aldrich Irrevocable Trust of 2011 and trusts established for the benefit of the Mr. Aldrich's minor children, (c) 668,192 shares of common stock held by Richard H. Aldrich Irrevocable Trust of 2005, (d) options to purchase an aggregate of 46,948 shares of common stock held by Mr. Aldrich that are exercisable within 60 days of April 27, 2018 and (e) 962,056 shares of common stock held by Longwood Fund III, LP. The trustee of the Richard H. Aldrich Irrevocable Trust of 2011 is Mr. Aldrich and he exercises sole voting and investment power over the shares of record held by the trust. Voting and investment power with respect to the shares held by Longwood Fund III GP, LLC are vested in Richard Aldrich and Christoph Westphal, M.D., Ph.D., the managers of Longwood Fund III GP LLC, the general partner of Longwood Fund III, LP.
- (9) Consists of (a) 11,111 shares of common stock held by Mr. Capello and (b) options to purchase an aggregate of 60,046 shares of common stock held by Mr. Capello that are exercisable within 60 days of April 27, 2018.
- (10) Consists of (a) 25,934 shares held by Ms. Fisher and (b) 55,598 options to purchase shares of common stock held by Ms. Fisher that are exercisable within 60 days of April 27, 2018.
- (11) Consists of (a) 60,342 shares of common stock held by Mr. Kozin and (b) options to purchase an aggregate of 54,400 shares of common stock held by Mr. Kozin that are exercisable within 60 days of April 27, 2018.
- (12) Consists of options to purchase an aggregate of 44,650 shares of common stock held by Dr. Sexton that are exercisable within 60 days of April 27, 2018.
- (13) Consists of options to purchase an aggregate of 44,650 shares of common stock held by Dr. Howe that are exercisable within 60 days of April 27, 2018.
- (14) See notes 4, 6 and 8 through 13 above; also includes James Lillie, who is an executive officer but not a named executive officer.
- (15) This information is based solely on a Schedule 13G/A filed with the Securities and Exchange Commission on or about February 13, 2018. All 3,574,014 shares of common stock are beneficially owned by FMR LLC. Abigail P. Johnson is a Director, the Chairman, the Chief Executive Officer and the President of FMR LLC. Members of the Johnson family, including Abigail P. Johnson, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders' voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. Neither FMR LLC nor Abigail P. Johnson has the sole power to vote or direct the voting of the shares owned directly by the various investment companies registered under the Investment Company Act ("Fidelity Funds") advised by Fidelity Management & Research Company ("FMR Co"), a wholly owned subsidiary of FMR LLC, which power resides with the

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Fidelity Funds' Boards of Trustees. Fidelity Management & Research Company carries out the voting of the shares under written guidelines established by the Fidelity Funds' Boards of Trustees.

- (16) Based solely on a Schedule 13G filed with the Securities and Exchange Commission on or about March 28, 2018, consists of 2,300,000 shares of common stock held by BML Investment Partners, L.P.
- (17) Based solely on a Schedule 13G filed with the Securities and Exchange Commission on or about March 29, 2018, consists of 2,200,000 shares of common stock jointly held by AIGH Investment Partners, L.P. ("AIGH LP") and Mr. Orin Hirschman, who is the Managing Member of AIGH LP's General Partner and president of AIGH Investment Partners, L.L.C.
- (18) This information is based solely on a Schedule 13G/A filed with the Securities and Exchange Commission on or about February 5, 2018. Consists of (a) 2,187,849 shares of common stock held by Jennison Associates LLC. Prudential Financial, Inc. is a parent holding company and indirect parent of Jennison Associates LLC.
- (19) This information is based solely on a Schedule 13G/A filed with the Securities and Exchange Commission on or about June 8, 2017. BlackRock, Inc. reported sole voting power over 1,727,419 shares and sole dispositive power over 1,770,587 shares on behalf of the following subsidiaries: BlackRock Advisors, LLC, BlackRock Asset Management Canada Limited, BlackRock Asset Management Ireland Limited, BlackRock Asset Management Schweiz AG, BlackRock Fund Advisors, BlackRock Institutional Trust Company, N.A., and BlackRock Investment Management, LLC.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act requires our directors and officers and holders of more than 10% of our common stock to file with the SEC initial reports of ownership of our common stock and other equity securities on a Form 3 and reports of changes in such ownership on a Form 4 or Form 5. Directors and officers and holders of 10% of our common stock are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file. Our records reflect all reports which were required to be filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, as amended, were filed on a timely basis, except for a Form 4 of Christophe Couturier filed on March 13, 2017 reporting a purchase of common stock, which was inadvertently filed late.

OTHER MATTERS

Our Board does not know of any other matters that may come before the Annual Meeting. However, if any other matters are properly presented to the Annual Meeting, it is the intention of the persons named in the accompanying proxy to vote, or otherwise act, in accordance with their judgment on such matters.

STOCKHOLDER PROPOSALS

Deadline for Submission of Stockholder Proposals for 2019 Annual Meeting

Proposals of stockholders intended to be presented at the 2019 Annual Meeting of the stockholders, pursuant to Rule 14a-8 promulgated under the Exchange Act, must be received by our Secretary in writing at our principal offices, OvaScience, Inc., 9 Fourth Avenue, Waltham, Massachusetts 02451, Attention: Investor Relations, no later than December 31, 2018, in order to be included in the proxy statement and proxy card relating to that meeting.

If a stockholder wishes to present a proposal, or nominate a candidate for election, at our 2019 Annual Meeting of stockholders, but does not wish to have the proposal considered for inclusion in our proxy statement and proxy card, such stockholder must give written notice to the Secretary of the Company at our principal executive offices at the address noted above. The Secretary must receive such notice no earlier than February 26, 2019 and no later than March 28, 2019, provided that if the date of the 2019 Annual Meeting is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the Annual Meeting, such notice must instead be received by the Secretary no earlier than the 120th day prior to the 2019 Annual Meeting and not later than the later of (i) the 90th day prior to the 2019 Annual Meeting and (ii) the tenth day following the day on which notice of the date of the 2019 Annual Meeting was mailed or public disclosure of the date of the 2019 Annual Meeting was made, whichever occurs first. The notice must contain and be accompanied by information described in our by-laws.

OvaScience, Inc.
2018 Non-Employee Director Compensation Policy

The Board of Directors (the "Board") of OvaScience, Inc. (the "Company") has adopted this 2018 OvaScience, Inc. Non-Employee Director Compensation Policy (the "Policy") to assist the Compensation Committee of the Board (the "Committee") in establishing retainers, fees and equity grants (and payment or award thereof, as applicable) associated with compensation for any directors of the Company who are not also employees.

This Policy shall apply to each director of the Company who is not an employee of the Company or any Affiliate (each, a "Non-Employee Director"). "Affiliate" shall mean an entity which is a direct or indirect parent or subsidiary of the Company, as determined pursuant to Section 424 of the Internal Revenue Code of 1986, as amended.

General Compensation Limits.

Commencing in calendar year 2018, the following limits shall be in effect for payments and compensation to be paid to each Non-Employee Director:

<i>Compensation Limits for Incumbent Non-Employee Directors:</i>	Incumbent Non-Employee Directors' total annual compensation, including all cash and equity components (based on grant-date fair value), will not exceed \$300,000 per calendar year.
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<i>Compensation Limits for Newly-Appointed Non-Employee Directors:</i>	Newly-Appointed Non-Employee Directors' total annual compensation, including all cash and equity components (based on grant-date fair value), will not exceed \$600,000 within the calendar year of first being appointed.
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The preceding limits will remain in effect until December 31, 2021, unless otherwise amended and approved by a vote of the Company's stockholders.

2018 Non-Employee Director Compensation.

Each Non-Employee Director shall be entitled to the payments described below while serving as a director for calendar year 2018. After calendar year 2018, these retainers, fees and grants may be

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modified for years after 2018 by the Committee or the Board in their discretion, subject to the general compensation limits described above.

<i>Annual Base Retainer:</i>	An annual base retainer fee of \$35,000 shall be payable to each Non-Employee Director.
<i>Committee Chair Fee:</i>	The corresponding annual chair fee set forth below shall also be payable to each Non-Employee Director who becomes or remains the chair of each of the following committees of the Board.
Audit Committee:	\$ 15,000
Compensation Committee:	\$ 10,000
Nominating and Corporate Governance Committee:	\$ 7,500
<i>Committee Membership Fee:</i>	The corresponding annual committee fee set forth below shall also be payable to each Non-Employee Director who becomes or remains a member of the following committees of the Board for his or her committee member services.
Audit Committee:	\$ 8,000
Compensation Committee:	\$ 5,000
Nominating and Corporate Governance Committee:	\$ 3,750

In addition, the members of the Board's Global Strategy Committee will receive monthly retainer payments, as determined in the sole discretion of the Board.

<i>Additional Fees:</i>	In addition to the above fees, the Board may determine that additional committee fees are appropriate and should be payable for any newly-created committee of the Board.
<i>Initial Equity Grant for Newly-Appointed Non-Employee Directors:</i>	Each Newly-Appointed Non-Employee Director shall be granted a non-qualified stock option to purchase 8,650 shares of the Company's common stock under the Company's 2012 Stock Incentive Plan, or any successor plan (the "Stock Plan"), at the first regularly scheduled meeting of the Board of Directors on or after his or her initial appointment or election to the Board of Directors.
<i>Annual Equity Grant for Incumbent Non-Employee Directors:</i>	Annually, each Incumbent Non-Employee Director shall be granted a non-qualified stock option to purchase 12,000 shares of the Company's common stock under the Company's Stock Plan on the date of the first meeting of the Board of Directors held following the Company's annual meeting of stockholders.

During calendar year 2018, the Company will not provide additional compensation to Non-Employee Directors, other than as provided under this Policy, unless such additional compensation is in exchange for bona fide services or is otherwise reviewed and approved in accordance with the Company's Policy regarding Related Person Transactions then in effect.

Option Grant Terms.

Unless otherwise specified by the Board or the Committee at the time of grant, all options granted under this Policy shall (i) vest in equal monthly installments at the end of each successive month following the grant date until the first anniversary of the grant date, subject to the Non-Employee Director's continued service on the Board; (ii) have an exercise price equal to the fair market value of the Company's common stock as determined in the Stock Plan on the grant date; (iii) terminate ten

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years after the grant date; and (iv) contain such other terms and conditions as set forth in the form of option agreement approved by the Board or the Committee prior to the grant date.

Shares purchased upon exercise of an Initial Equity Grant or Annual Equity Grant granted following the adoption by the Board and approval by the stockholders of this Policy will be subject to a resale restriction ending on the earlier of such Non-Employee Director's termination of service as a Non-Employee Director and the seven-year anniversary of the date of grant of the option (the "Holding Period"); provided, however, that the Holding Period will not apply to: (i) any shares retained by the Company as a result of any net exercise of the options to cover the option exercise price, or (ii) any shares sold by the Non-Employee Director to cover any taxes associated with the exercise of the option. The Holding Period requirement will apply to Initial Equity Grants and Annual Equity Grants made through December 31, 2021, unless otherwise amended and approved by a vote of the Company's stockholders.

All stock option amounts set forth herein shall be subject to automatic adjustment in the event of any stock split or other recapitalization affecting the Company's common stock.

Annual Fees.

Except as otherwise set forth in this Policy, all Annual Base Retainer Fees, Committee Chair Fees and Committee Membership Fees (the "Annual Fees") shall be paid for the period from January 1 through December 31 of each year. Such Annual Fees shall be paid in one of the following combinations of cash and/or a grant of common stock under the Stock Plan, at the election of each Non-Employee Director, as follows:

- cash in the amount of each Non-Employee Director's Annual Fees;
- such number of shares of the Company's common stock as is equal to the full dollar amount of each Non-Employee Director's Annual Fees (as calculated below under "Calculation of Shares"); or
- any combination of cash or grant of shares of the Company's common stock in 25% increments that equals the full dollar amount of each Non-Employee Director's Annual Fees (as calculated below under "Calculation of Shares").

Election.

Each Non-Employee Director shall make an annual election on the form provided by the Company, indicating the combination of cash and/or common stock elected, prior to December 31 of the year prior to the payment of the Annual Fees. In the event that a Non-Employee Director has not submitted his or her election for the applicable year by December 31, then the election of such Non-Employee Director shall be deemed to be the same as the election made by such Non-Employee Director for the prior year, and if no election has been made, then the Non-Employee Director shall receive all Annual Fees in cash. Each newly elected or appointed Non-Employee Director shall make an election prior to the beginning of the next calendar quarter after his or her initial appointment or election.

Payments.

Payments of Annual Fees payable to Non-Employee Directors shall be paid quarterly in arrears as of the last business day of each fiscal quarter, provided that (i) the amount of such payment shall be prorated for any portion of such quarter that such director was not serving on the Board or a committee and (ii) no fee shall be payable in respect of any period prior to the date such director was elected to the Board or a committee.

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Calculation of Shares.

If shares of common stock are to be received as payment, the number of shares shall be calculated by dividing the applicable quarterly dollar amount that the Non-Employee Director has elected to be paid in shares of common stock by the Fair Market Value (as defined in the Stock Plan) of the shares of common stock of the Company on the last business day of each fiscal quarter (the "Calculation Date") (rounded down to the nearest whole number so that no fractional shares shall be issued). The shares shall automatically and without any further action required by the Board be issued as of the Calculation Date.

If the Non-Employee Director ceases providing services on the Board, the number of shares to be received by a Non-Employee Director shall be calculated by dividing the applicable prorated quarterly dollar amount that the Non-Employee Director has elected to be paid in shares of common stock by the Fair Market Value (as defined in the Stock Plan) of the shares of common stock of the Company on the last day of service (rounded down to the nearest whole number so that no fractional shares shall be issued). The shares shall automatically and without any further action required by the Board be issued as of such date.

Expenses.

Upon presentation of documentation of such expenses reasonably satisfactory to the Company, each Non-Employee Director shall be reimbursed for his or her reasonable out-of-pocket business expenses incurred in connection with attending meetings of the Board and committees thereof or in connection with other business related to the Board.

Amendment to the Policy.

As is the Company's current practice, in enacting or proposing any amendments to the Policy, including any amendment of the general compensation limits or the annual retainers, fees and grants, the Board or the Committee will assess, and be guided by, an analysis of compensation paid to non-employee directors of a peer group of companies as well as current best practices.

This policy was adopted by the Board on April 30, 2018, and approved by the stockholders on .

OVASCIENCE, INC.
9 4TH AVENUE
WALTHAM, MA 02451
ATTN: JONATHAN GILLIS

VOTE BY INTERNET - www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time on June 25, 2018. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time on June 25, 2018. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

E47193-P08955

KEEP THIS PORTION FOR YOUR RECORDS
 DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

OVASCIENCE, INC.		For All	Withhold All	For All Except	To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.	
The Board of Directors recommends you vote <u>FOR</u> each of the Class III Director nominees:						
1.	Election of Class III Directors Nominees: 01) Christopher Kroeger 02) Jeffrey D. Capello	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	
The Board of Directors recommends you vote <u>FOR</u> proposal 2.						For Against Abstain
2.	To ratify the appointment of Ernst & Young LLP, an independent registered public accounting firm, as the independent auditors of OvaScience for the fiscal year ending December 31, 2018.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
The Board of Directors recommends you vote <u>FOR</u> proposal 3.						
3.	Proposal to approve, on an advisory basis, the compensation of the Company's named executive officers, as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
The Board of Directors recommends you vote <u>FOR</u> proposal 4.						
4.	Proposal to approve the OvaScience, Inc. 2018 Non-Employee Director Compensation Policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
For address changes and/or comments, please check this box and write them on the back where indicated.		<input type="checkbox"/>				
Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.						
<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>
Signature [PLEASE SIGN WITHIN BOX]		Date		Signature (Joint Owners)		Date

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:
The Notice, Proxy Statement and Annual Report are available at www.proxyvote.com.

E47194-P08955

OVASCIENCE, INC.
2018 Annual Meeting of Stockholders
To be held Tuesday, June 26, 2018 at 9:00 a.m., Eastern Time
This proxy is solicited by the Board of Directors

The undersigned, having received notice of the Annual Meeting of Stockholders and the proxy statement therefor and revoking all prior proxies, hereby appoints each of Christopher Kroeger and Jonathan Gillis (each with full power of substitution), as Proxies of the undersigned, to attend the Annual Meeting of Stockholders of OvaScience to be held at 9:00 a.m., Eastern Time, on Tuesday, June 26, 2018, at 70 3rd Avenue, Waltham, Massachusetts 02451, and any adjourned or postponed session thereof, and there to vote and act as indicated upon the matters on the reverse side in respect to all shares of common stock which the undersigned would be entitled to vote or act upon, with all powers the undersigned would possess if personally present.

You can revoke your proxy at any time before it is voted at the annual meeting (i) by submitting another properly completed proxy bearing a later date; (ii) by giving written notice of revocation to the Secretary of OvaScience; (iii) if you submitted a proxy through the Internet or telephone, by submitting a proxy again through the Internet or by telephone prior to the close of the Internet voting facility or the telephone voting facility; or (iv) by voting in person at the annual meeting. If you hold any of the shares of common stock in a fiduciary, custodial or joint capacities, this proxy is signed by you in every such capacity as well as individually.

This proxy, when executed, will be voted in the manner directed herein. If you do not specify below how you want your shares to be voted, this proxy will be voted FOR the election of Directors, and FOR Proposals 2, 3 and 4. In their discretion, the Proxies are authorized to vote upon any other business that may properly come before the annual meeting or any adjournment(s) thereof.

Please vote, date and sign on reverse side and return promptly in the enclosed pre-paid envelope.

Your vote is important. Please vote immediately.

Address Changes/Comments: _____

(If you noted any Address Changes/Comments above, please mark corresponding box on the reverse side.)

Continued and to be signed on reverse side

