

**OVASCIENCE, INC.**  
9 FOURTH AVENUE  
WALTHAM, MA 02451  
(617) 500-2802

March 15, 2018

**VIA EDGAR**

Securities and Exchange Commission  
Division of Corporation Finance  
100 F. Street N.E.  
Washington, D.C. 20549  
Attn: Joseph McCann, Esq.

Re: **OvaScience, Inc. — Request for Withdrawal of Registration Statement on Form S-3 (File No. 333-214413)**

Ladies and Gentlemen:

Pursuant to Rule 477 promulgated under the Securities Act of 1933, as amended (the “Securities Act”), OvaScience, Inc. (the “Company”) hereby requests that the Securities and Exchange Commission (the “Commission”) consent to the withdrawal of the Company’s registration statement on Form S-3 (File No. 333-214413), together with the exhibits and amendments thereto, which was filed on November 3, 2016 (the “Registration Statement”), as of the date hereof or at the earliest practicable date hereafter. The Registration Statement has not been declared effective by the Commission and no securities have been issued or sold under the Registration Statement.

Accordingly, the Company respectfully requests, in accordance with Rule 457(p) under the Securities Act, that all fees paid to the Commission in connection with the filing of the Registration Statement be credited to the Company’s account to be offset against the filing fee for any future registration statement or registration statements.

If you have questions regarding this request, please contact the Company’s legal counsel, William C. Hicks, Esq., of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., at (617) 542-6000.

Very truly yours,

/s/ Christopher Kroeger  
Chief Executive Officer and President

cc: Jonathan Gillis (Senior Vice President of Finance at OvaScience, Inc.)  
Megan N. Gates, Esq. (Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.)

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