

OvaScience, Inc.  
Form SC 13D/A  
March 28, 2013

CUSIP No. 69014Q101

13D/A

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

---

**SCHEDULE 13D/A**

**Under the Securities Exchange Act of 1934  
(Amendment No. 1)\***

---

**OvaScience, Inc.**

(Name of Issuer)

---

**Common Stock, par value \$0.001 per share**

(Title of Class of Securities)

**69014Q 101**

(CUSIP Number)

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

**Longwood Fund Management**

**Prudential Tower, Suite 1555**

**800 Boylston Street**

**Boston, Massachusetts 02199**

Edgar Filing: OvaScience, Inc. - Form SC 13D/A

(617) 351-2590

with a copy to:

**Sarah Rothermel**

**Wilmer Cutler Pickering Hale and Dorr LLP**

**60 State Street**

**Boston, Massachusetts 02109**

(Name, Address and Telephone Number of Person  
Authorized to Receive Notices and Communications)

**March 18, 2013**

(Date of Event Which Requires Filing of this Statement)

---

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

**Note:** Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

\* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

---

Edgar Filing: OvaScience, Inc. - Form SC 13D/A

CUSIP No. 69014Q101

13D/A

- (1) Names of Reporting Persons  
Longwood Fund, L.P.
- (2) Check the Appropriate Box if a Member of a Group (See Instructions)  
 (a)  x  
 (b)  o
- (3) SEC Use Only
- (4) Source of Funds (See Instructions)  
WC
- (5) Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)  o
- (6) Citizenship or Place of Organization  
Delaware, United States of America
- (7) Sole Voting Power  
0
- Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With:
- (8) Shared Voting Power  
3,720,571
- (9) Sole Dispositive Power  
0
- (10) Shared Dispositive Power  
3,720,571
- (11) Aggregate Amount Beneficially Owned by Each Reporting Person  
3,720,571
- (12) Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)  o
- (13) Percent of Class Represented by Amount in Row (11)  
20.5%
- (14) Type of Reporting Person (See Instructions)  
PN

Edgar Filing: OvaScience, Inc. - Form SC 13D/A

CUSIP No. 69014Q101

13D/A

- (1) Names of Reporting Persons  
Longwood Fund GP, LLC
- (2) Check the Appropriate Box if a Member of a Group (See Instructions)  
(a)  x  
(b)  o
- (3) SEC Use Only
- (4) Source of Funds (See Instructions)  
AF
- (5) Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)  o
- (6) Citizenship or Place of Organization  
Delaware, United States of America
- (7) Sole Voting Power  
0
- Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With:
- (8) Shared Voting Power  
3,720,571
- (9) Sole Dispositive Power  
0
- (10) Shared Dispositive Power  
3,720,571
- (11) Aggregate Amount Beneficially Owned by Each Reporting Person  
3,720,571
- (12) Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)  o
- (13) Percent of Class Represented by Amount in Row (11)  
20.5%
- (14) Type of Reporting Person (See Instructions)  
OO

Edgar Filing: OvaScience, Inc. - Form SC 13D/A

CUSIP No. 69014Q101

13D/A

- (1) Names of Reporting Persons  
Christoph Westphal, M.D., Ph.D.
- (2) Check the Appropriate Box if a Member of a Group (See Instructions)  
 (a)  x  
 (b)  o
- (3) SEC Use Only
- (4) Source of Funds (See Instructions)  
AF, PF
- (5) Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)  o
- (6) Citizenship or Place of Organization  
United States citizen
- |  |      |                                       |
|--|------|---------------------------------------|
| Number of<br>Shares<br>Beneficially<br>Owned by<br>Each<br>Reporting<br>Person With: | (7)  | Sole Voting Power<br>701,927          |
|  | (8)  | Shared Voting Power<br>3,720,571      |
|  | (9)  | Sole Dispositive Power<br>701,927     |
|  | (10) | Shared Dispositive Power<br>3,720,571 |
- (11) Aggregate Amount Beneficially Owned by Each Reporting Person  
4,422,498
- (12) Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)  o
- (13) Percent of Class Represented by Amount in Row (11)  
24.3%
- (14) Type of Reporting Person (See Instructions)  
IN

Edgar Filing: OvaScience, Inc. - Form SC 13D/A

CUSIP No. 69014Q101

13D/A

- (1) Names of Reporting Persons  
Richard Aldrich
- (2) Check the Appropriate Box if a Member of a Group (See Instructions)  
(a)  x  
(b)  o
- (3) SEC Use Only
- (4) Source of Funds (See Instructions)  
AF, PF
- (5) Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)  o
- (6) Citizenship or Place of Organization  
United States citizen
- |  |      |                                       |
|--|------|---------------------------------------|
| Number of<br>Shares<br>Beneficially<br>Owned by<br>Each<br>Reporting<br>Person With: | (7)  | Sole Voting Power<br>526,445          |
|  | (8)  | Shared Voting Power<br>3,896,052      |
|  | (9)  | Sole Dispositive Power<br>526,445     |
|  | (10) | Shared Dispositive Power<br>3,896,052 |
- (11) Aggregate Amount Beneficially Owned by Each Reporting Person  
4,422,497
- (12) Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)  o
- (13) Percent of Class Represented by Amount in Row (11)  
24.3%
- (14) Type of Reporting Person (See Instructions)  
IN

Edgar Filing: OvaScience, Inc. - Form SC 13D/A

CUSIP No. 69014Q101

13D/A

- (1) Names of Reporting Persons  
Michelle Dipp, M.D., Ph.D.
- (2) Check the Appropriate Box if a Member of a Group (See Instructions)  
(a)  x  
(b)  o
- (3) SEC Use Only
- (4) Source of Funds (See Instructions)  
AF, PF
- (5) Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)  o
- (6) Citizenship or Place of Organization  
United States citizen
- |  |      |                                       |
|--|------|---------------------------------------|
| Number of<br>Shares<br>Beneficially<br>Owned by<br>Each<br>Reporting<br>Person With: | (7)  | Sole Voting Power<br>739,159          |
|  | (8)  | Shared Voting Power<br>3,720,571      |
|  | (9)  | Sole Dispositive Power<br>739,159     |
|  | (10) | Shared Dispositive Power<br>3,720,571 |
- (11) Aggregate Amount Beneficially Owned by Each Reporting Person  
4,459,730
- (12) Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)  o
- (13) Percent of Class Represented by Amount in Row (11)  
24.5%
- (14) Type of Reporting Person (See Instructions)  
IN

Edgar Filing: OvaScience, Inc. - Form SC 13D/A

CUSIP No. 69014Q101

13D/A

- (1) Names of Reporting Persons  
Jonathan Tilly, Ph.D.
- (2) Check the Appropriate Box if a Member of a Group (See Instructions)  
 (a)  x  
 (b)  o
- (3) SEC Use Only
- (4) Source of Funds (See Instructions)  
PF
- (5) Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)  o
- (6) Citizenship or Place of Organization  
United States citizen
- (7) Sole Voting Power  
701,927
- (8) Shared Voting Power  
0
- (9) Sole Dispositive Power  
701,927
- (10) Shared Dispositive Power  
0
- (11) Aggregate Amount Beneficially Owned by Each Reporting Person  
701,927
- (12) Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)  o
- (13) Percent of Class Represented by Amount in Row (11)  
3.9%
- (14) Type of Reporting Person (See Instructions)  
IN

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With:



CUSIP No. 69014Q101	13D/A	
---------------------	-------	--

### Item 1. Security and Issuer

This Amendment No. 1 to Schedule 13D amends and supplements the Schedule 13D originally filed with the Securities and Exchange Commission (the "SEC") by Longwood Fund, L.P. (the "Fund"), Longwood Fund GP, LLC, Christoph Westphal, M.D., Ph.D., Richard Aldrich, Michelle Dipp, M.D., Ph.D., and Jonathan Tilly, Ph.D. (collectively, the "Reporting Persons") on February 8, 2013 (the "Schedule 13D") relating to the common stock, par value \$0.001 per share (the "Common Stock"), of OvaScience, Inc., a Delaware corporation (the "Issuer"). Except as expressly set forth herein, there have been no changes to in the information set forth in the Schedule 13D. Capitalized terms used but not defined herein have the meanings ascribed to them in the Schedule 13D. Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable.

### Item 3. Source and Amount of Funds or Other Consideration.

Item 3 is hereby amended to append the following:

On March 18, 2013, the Fund purchased in a private placement transaction (the "Private Placement") 419,444 shares of Common Stock (the "Additional Shares"), at a purchase price of \$9.00 per share, for an aggregate purchase price of \$3,774,996. The working capital of the Fund was the source of funds for the purchase of the Additional Shares.

### Item 5. Interest in Securities of the Issuer.

Items 5(a), 5(b) and 5(c) of the Schedule 13D are hereby amended and restated in their entirety as follows:

The percentage of Common Stock reported beneficially owned by each Reporting Person is determined in accordance with SEC rules and is based upon 18,175,731 shares of the Issuer's Common Stock outstanding as of March 18, 2013 immediately following the consummation of the Private Placement. The applicable SEC rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities.

#### A. Longwood Fund, L.P.

(a) At the close of business on March 18, 2013, the Fund beneficially owned 3,720,571 shares of Common Stock, representing a beneficial ownership of approximately 20.5% of the outstanding Common Stock. All such shares are directly held by the Fund.

Edgar Filing: OvaScience, Inc. - Form SC 13D/A

(b)	1. Sole power to vote or direct vote:	0
	2. Shared power to vote or direct vote:	3,720,571
	3. Sole power to dispose or direct the disposition:	0
	4. Shared power to dispose or direct the disposition:	3,720,571

**B. Longwood Fund GP, LLC**

(a) At the close of business on March 18, 2013, the General Partner beneficially owned 3,720,571 shares of Common Stock, representing a beneficial ownership of approximately 20.5% of the outstanding Common Stock. All such shares are directly held by the Fund.

(b)	1. Sole power to vote or direct vote:	0
	2. Shared power to vote or direct vote:	3,720,571
	3. Sole power to dispose or direct the disposition:	0
	4. Shared power to dispose or direct the disposition:	3,720,571

**C. Christoph Westphal, M.D., Ph.D.**

(a) At the close of business on March 18, 2013, Christoph Westphal, M.D., Ph.D., beneficially owned 4,422,498 shares of Common Stock, representing a beneficial ownership of approximately 24.3% of the outstanding Common Stock. 701,927 of these shares are held by Dr. Westphal personally and 3,720,571 are held by the Fund.

(b)	1. Sole power to vote or direct vote:	701,927
	2. Shared power to vote or direct vote:	3,720,571
	3. Sole power to dispose or direct the disposition:	701,927
	4. Shared power to dispose or direct the disposition:	3,720,571

CUSIP No. 69014Q101	13D/A	
---------------------	-------	--

**D. Richard Aldrich**

(a) At the close of business on March 18, 2013, Richard Aldrich beneficially owned 4,422,497 shares of Common Stock, representing a beneficial ownership of approximately 24.3% of the outstanding Common Stock. 526,445 of these shares are held by Mr. Aldrich personally, 175,481 are held by the Richard H. Aldrich Irrevocable Trust of 2011 and 3,720,571 are held by the Fund. Mr. Aldrich's spouse is the trustee of the Richard H. Aldrich Irrevocable Trust of 2011, and she exercises voting and investment power over the shares of record held by such trust.

(b)	1. Sole power to vote or direct vote:	526,445
	2. Shared power to vote or direct vote:	3,896,052
	3. Sole power to dispose or direct the disposition:	526,445
	4. Shared power to dispose or direct the disposition:	3,896,052

**E. Michelle Dipp, M.D., Ph.D.**

(a) At the close of business on March 18, 2013, Michelle Dipp, M.D., Ph.D. beneficially owned 4,459,730 shares of Common Stock, representing a beneficial ownership of approximately 24.5% of the outstanding Common Stock. 701,927 of these shares are held by Dr. Dipp directly, 16,025 of these shares are restricted stock units that vest within 60 days of March 18, 2013, 21,207 of these shares are options to purchase Common Stock that vest within 60 days of March 18, 2013 and 3,720,571 of these shares are held by the Fund.

(b)	1. Sole power to vote or direct vote:	739,159
	2. Shared power to vote or direct vote:	3,720,571
	3. Sole power to dispose or direct the disposition:	739,159
	4. Shared power to dispose or direct the disposition:	3,720,571

**F. Jonathan Tilly, Ph.D.**

(a) At the close of business on March 18, 2013, Jonathan Tilly, Ph.D. beneficially owned 701,927 shares of Common Stock, representing a beneficial ownership of approximately 3.9% of the outstanding Common Stock, all of which are held by Dr. Tilly directly.

(b)	1. Sole power to vote or direct vote:	701,927
	2. Shared power to vote or direct vote:	0
	3. Sole power to dispose or direct the disposition:	701,927
	4. Shared power to dispose or direct the disposition:	0

## Edgar Filing: OvaScience, Inc. - Form SC 13D/A

The aggregate number of shares of Common Stock beneficially owned collectively by the parties to the Voting Agreement (as defined in the Schedule 13D), including the Reporting Persons, based on available information, is 10,048,453, which represents approximately 55.2% of the outstanding Common Stock. The Reporting Persons disclaim beneficial ownership of any shares owned by the other parties to the Voting Agreement.

(c) As described in Item 3.

### **Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.**

The following paragraph is hereby added to Item 6:

In connection with the sale of the Additional Securities, the Issuer entered into a Registration Rights Agreement and a Securities Purchase Agreement with the Fund and certain other investors in the Issuer, each as described in the Current Report on Form 8-K filed by the Issuer on March 14, 2013.

CUSIP No. 69014Q101	13D/A	
---------------------	-------	--

**Item 7. Material to be Filed as Exhibits.**

The following documents are filed as Exhibits to this statement:

Exhibit Number	Exhibit Description
99.1	Joint Filing Agreement
99.2	Amended and Restated Voting Agreement, dated March 29, 2012, by and among the Issuer and the other parties thereto (incorporated by reference to Exhibit 10.15 to the Issuer's Registration Statement on Form 10 (SEC File No. 000-54647) filed by the Issuer on April 11, 2012).
99.3	Amended and Restated Investors' Rights Agreement, dated March 29, 2012, by and among the Issuer and the other parties thereto (incorporated by reference to Exhibit 4.4 to the Issuer's Registration Statement on Form 10 (SEC File No. 000-54647), filed by the Issuer on April 11, 2012).
99.4	Form of Amended and Restated Restricted Stock Agreement between the Registrant and each of Michelle Dipp and Christoph Westphal (incorporated by reference to Exhibit 10.8 to the Issuer's Registration Statement on Form 10 (SEC File No. 000-54647), filed by the Issuer on April 11, 2012).
99.5	Amended and Restated Restricted Stock Agreement between the Registrant, Richard Aldrich and the Richard H. Aldrich Irrevocable Trust of 2011, dated March 29, 2012 (incorporated by reference to Exhibit 10.10 to the Issuer's Registration Statement on Form 10 (SEC File No. 000-54647), filed by the Issuer on April 11, 2012).
99.6	Form of Amended and Restated Restricted Stock Agreement between the Registrant and Jonathan Tilly (incorporated by reference to Exhibit 10.9 to the Registration Statement on Form 10 (File No. 000-54647) filed by the registrant on April 11, 2012).
99.7	Registration Rights Agreement, dated March 12, 2013, by and among the Company and the persons party thereto (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed by the Issuer on March 14, 2013).

CUSIP No. 69014Q101	13D/A	
---------------------	-------	--

**SIGNATURES**

After reasonable inquiry and to the best of my knowledge and belief, we certify that the information set forth in this statement is true, complete and correct. We also hereby agree to file this statement jointly pursuant to the Agreement listed on Exhibit 99.1 hereto.

Dated: March 28, 2013

**LONGWOOD FUND, L.P.**

By: Longwood Fund GP, LLC, a  
Delaware limited liability company and  
general partner of Longwood Fund, L.P.

By: /s/ Michelle Dipp  
Michelle Dipp, M.D., Ph.D., Manager

**LONGWOOD FUND GP, LLC**

By: /s/ Michelle Dipp  
Michelle Dipp, M.D., Ph.D., Manager

/s/ Christoph Westphal  
Christoph Westphal, M.D., Ph.D.

/s/ Richard Aldrich  
Richard Aldrich

/s/ Michelle Dipp  
Michelle Dipp, M.D., Ph.D.

/s/ Jonathan Tilly  
Jonathan Tilly, Ph.D.