

OvaScience, Inc.
Form SC 13D
February 08, 2013

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

SCHEDULE 13D

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

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

(617) 351-2590

with a copy to:

Sarah Rothermel

Wilmer Cutler Pickering Hale and Dorr LLP

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60 State Street

Boston, Massachusetts 02109

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

January 31, 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. o

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).

SCHEDULE 13D

CUSIP No. 69014Q 101

- (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
- | | | |
|--|------|---------------------------------------|
| Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With: | (7) | Sole Voting Power
0 |
| | (8) | Shared Voting Power
3,301,127 |
| | (9) | Sole Dispositive Power
0 |
| | (10) | Shared Dispositive Power
3,301,127 |
- (11) Aggregate Amount Beneficially Owned by Each Reporting Person
3,301,127
- (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)
23.1%
- (14) Type of Reporting Person (See Instructions)
PN

SCHEDULE 13D

CUSIP No. 69014Q 101

- (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
- | | | |
|--|------|---------------------------------------|
| Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With: | (7) | Sole Voting Power
0 |
| | (8) | Shared Voting Power
3,301,127 |
| | (9) | Sole Dispositive Power
0 |
| | (10) | Shared Dispositive Power
3,301,127 |
- (11) Aggregate Amount Beneficially Owned by Each Reporting Person
3,301,127
- (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)
23.1%
- (14) Type of Reporting Person (See Instructions)
OO

SCHEDULE 13D

CUSIP No. 69014Q 101

- (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
Shares
Beneficially
Owned by
Each
Reporting
Person With: | (7) | Sole Voting Power
701,927 |
| | (8) | Shared Voting Power
3,301,127 |
| | (9) | Sole Dispositive Power
701,927 |
| | (10) | Shared Dispositive Power
3,301,127 |
- (11) Aggregate Amount Beneficially Owned by Each Reporting Person
4,003,054
- (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)
28.1%
- (14) Type of Reporting Person (See Instructions)
IN

SCHEDULE 13D

CUSIP No. 69014Q 101

- | | |
|------|---|
| (1) | Names of Reporting Persons
Richard Aldrich |
| (2) | Check the Appropriate Box if a Member of a Group (See Instructions) |
| | (a) <input checked="" type="checkbox"/> x |
| | (b) <input type="checkbox"/> 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) <input type="checkbox"/> o |
| (6) | Citizenship or Place of Organization
United States citizen |
| | (7) Sole Voting Power
526,445 |
| | (8) Shared Voting Power
3,476,608 |
| | (9) Sole Dispositive Power
526,445 |
| | (10) Shared Dispositive Power
3,476,608 |
| (11) | Aggregate Amount Beneficially Owned by Each Reporting Person
4,003,053 |
| (12) | Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/> o |
| (13) | Percent of Class Represented by Amount in Row (11)
28.1% |
| (14) | Type of Reporting Person (See Instructions)
IN |

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With:

SCHEDULE 13D

CUSIP No. 69014Q 101

- (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
Shares
Beneficially
Owned by
Each
Reporting
Person With: | (7) | Sole Voting Power
717,953 |
| | (8) | Shared Voting Power
3,301,127 |
| | (9) | Sole Dispositive Power
717,953 |
| | (10) | Shared Dispositive Power
3,301,127 |
- (11) Aggregate Amount Beneficially Owned by Each Reporting Person
4,019,080
- (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)
28.2%
- (14) Type of Reporting Person (See Instructions)
IN

SCHEDULE 13D

CUSIP No. 69014Q 101

- | | |
|--|---|
| (1) | Names of Reporting Persons
Jonathan Tilly, Ph.D. |
| (2) | Check the Appropriate Box if a Member of a Group (See Instructions) |
| | (a) <input checked="" type="checkbox"/> x |
| | (b) <input type="checkbox"/> 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) <input type="checkbox"/> o |
| (6) | Citizenship or Place of Organization
United States citizen |
| Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With: | (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) <input type="checkbox"/> o |
| (13) | Percent of Class Represented by Amount in Row (11)
4.9% |
| (14) | Type of Reporting Person (See Instructions)
IN |

SCHEDULE 13D

CUSIP No. 69014Q 101

Item 1.

Security and Issuer.

This statement on Schedule 13D relates to the Reporting Persons (as defined in Item 2 below) beneficial ownership interest in the common stock, par value \$0.001 per share (the Common stock), of OvaScience, Inc., a Delaware corporation (the Issuer). The address of the principal executive office of the Issuer is 215 First Street, Suite 240, Cambridge, Massachusetts 02142. Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable.

Item 2.

Identity and Background.

(a) This statement is filed by:

(i) Longwood Fund, L.P., a Delaware limited partnership (the Fund), with respect to the shares of Common Stock directly and beneficially owned by it;

(ii) Longwood Fund GP, LLC, a Delaware limited liability company (the General Partner), with respect to the shares of Common Stock directly and beneficially owned by it;

(iii) Christoph Westphal, M.D., Ph.D., with respect to the shares of Common Stock directly and beneficially owned by him;

(iv) Richard Aldrich, with respect to the shares of Common Stock directly and beneficially owned by him;

(v) Michelle Dipp, M.D., Ph.D., with respect to the shares of Common Stock directly and beneficially owned by her; and

(vi) Jonathan Tilly, Ph.D., with respect to the shares of Common Stock directly and beneficially owned by him.

Each of the foregoing is referred to as a Reporting Person and collectively as the Reporting Persons.

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The General Partner is the general partner of the Fund and exercises voting and investment power with respect to securities owned directly by the Fund. Richard Aldrich, Michelle Dipp, M.D., Ph.D., and Christoph Westphal, M.D., Ph.D., are the managers of the General Partner and share voting and dispositive power with respect to the securities held by the Fund. The General Partner, Mr. Aldrich, Dr. Dipp and Dr. Westphal each disclaim beneficial ownership of the securities owned directly by the Fund, except to the extent of their pecuniary interest therein.

The Reporting Persons are party to that certain Voting Agreement, dated March 29, 2012, by and between the Issuer and the parties thereto (the "Voting Agreement"), and as a result of such Voting Agreement, the Reporting Persons and the other stockholders of the Issuer party thereto, including entities affiliated with Bessemer Venture Partners and entities affiliated with General Catalyst Partners, may be deemed to comprise a "group" within the meaning of Section 13(d)(3) of the Exchange Act, although neither the fact of this filing nor any of the information contained herein shall be deemed to be an admission by the Reporting Persons that a "group" exists. To the Reporting Persons' knowledge, each of Bessemer Venture Partners and its affiliates and General Catalyst Partners and its affiliates are filing separate Schedules 13D on or around the date hereof. The Reporting Persons take no responsibility for any filings made by any such other party or the completeness or accuracy of any information contained therein.

Dr. Tilly is not affiliated with the other Reporting Persons described herein except with respect to his membership in such group.

Each Reporting Person disclaims beneficial ownership of the shares described above except to the extent of his, her or its pecuniary interest therein.

(b) The business address of each of the Reporting Persons other than Dr. Tilly is:

Longwood Fund
 Prudential Tower, Suite 1555
 800 Boylston Street
 Boston, Massachusetts 02199

The business address of Dr. Tilly is c/o OvaScience, Inc., 215 First Street, Suite 240, Cambridge, Massachusetts 02142.

- (c) The present principal business of the Fund, the General Partner, Dr. Westphal, Mr. Aldrich, and Dr. Dipp is the venture capital investment business. Dr. Dipp is also the chief executive officer of the Issuer. Dr. Westphal is the chief executive officer of Verastem, Inc., a pharmaceutical company located at 215 First Street, Suite 240, in Cambridge, Massachusetts. Dr. Tilly's principal occupation is as a scientist at the Vincent Center for Reproductive Biology at The Massachusetts General Hospital, located at 55 Fruit Street in Boston, Massachusetts. Dr. Westphal, Mr. Aldrich, Dr. Dipp and Dr. Tilly are members of the board of directors of the Issuer. Dr. Tilly is a member of the Scientific Advisory Board of the Issuer.
- (d) No Reporting Person, during the last five years, has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).
- (e) No Reporting Person, during the last five years, has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.
- (f) Citizenship of the Reporting Persons is as set forth below:

The Fund	Delaware, United States of America
The General Partner	Delaware, United States of America
Dr. Westphal	United States of America
Mr. Aldrich	United States of America
Dr. Dipp	United States of America
Dr. Tilly	United States of America

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

In July 2011, the Fund acquired an aggregate of 3,000,000 shares of Series A convertible preferred stock of the Issuer for an aggregate purchase price of \$3,000,000. On March 29, 2012, the Fund acquired an aggregate of 1,818,181 shares of Series B convertible preferred stock of the issuer for an aggregate purchase price of \$9,999,995.50. All such shares were acquired with working capital.

In addition, in connection with the formation of the Issuer, on April 7, 2011, Dr. Dipp, Mr. Aldrich, Dr. Westphal and Dr. Tilly each purchased 1,420,000 shares of Common Stock of the Issuer for an aggregate purchase price of \$2,840 per person. All such shares were acquired with personal funds of such Reporting Persons. On December 30, 2011, Mr. Aldrich transferred 355,000 shares of Common Stock of the Issuer to the Richard H. Aldrich Irrevocable Trust of 2011. On March 28, 2012, the Issuer underwent a 1-for-2.023 reverse stock split, after which Dr. Dipp, Dr. Westphal and Dr. Tilly each held 701,927 shares of Common Stock, Mr. Aldrich held 526,446 shares of Common Stock and the Richard H. Aldrich Irrevocable Trust of 2011 held 175,481 shares of Common Stock.

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On August 13, 2012, the Fund's shares of the Issuer's Series A convertible preferred stock were converted into Common Stock on a 1-for-2.023 basis and the Fund's shares of the Issuer's Series B convertible preferred stock were converted into Common Stock on a 1-for-1 basis.

On December 5, 2012, Dr. Dipp received a grant of restricted stock units of the Issuer, resulting in an increase in beneficial ownership by Dr. Dipp. 16,026 of such restricted stock units will vest on March 31,

2013, and therefore Dr. Dipp is deemed to have beneficial ownership over such shares as of January 31, 2013. The restricted stock units were granted to Dr. Dipp at no cost.

Item 4. Purpose of Transaction.

The shares of capital stock reported herein were acquired solely for investment purposes. None of the Reporting Persons have any present plans or proposals that relate to or would result in any change in the business, policies, management, structure or capitalization of the Issuer. The Reporting Persons reserve the right to acquire, or dispose of, additional securities of the Issuer in the ordinary course of their business, to the extent deemed advisable in light of their general investment and trading policies, market conditions or other factors. The Reporting Persons may engage in discussions from time to time with other stockholders of the Issuer regarding the acquisition by the Reporting Persons of others of shares of the Issuer's Common Stock held by such stockholders.

Dr. Dipp is the CEO of the Issuer and is also a manager of the General Partner. Mr. Aldrich and Dr. Westphal are members of the Board of Directors of the Issuer and are also managers of the General Partner. Dr. Tilly is a member of the Board of Directors of the Issuer and the Scientific Advisory Board of the Issuer.

The Reporting Persons may seek information from management and the Issuer's Board of Directors, and may engage in further discussions with management, the Issuer's Board of Directors, other stockholders of the Issuer and other relevant parties, concerning the business, operations, governance, management, strategy, capitalization and/or future plans of the Issuer, or in proposing one or more of the other actions described in subparagraphs (a) through (j) of this Item 4. In addition, the Reporting Persons may exercise their rights under the Investors' Rights Agreement, as defined below.

In addition, the Reporting Persons are aware that the Issuer intends to list its Common Stock on a national securities exchange. The Reporting Persons are also aware that the Issuer intends to file a new charter and implement new bylaws upon the listing of its Common Stock on a national securities exchange.

Other than as described above, the Reporting Persons do not have any plans or proposals which would result in any of the following:

- (a) The acquisition by any person of additional securities of the Issuer, or the disposition of securities of the Issuer;
- (b) An extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries;
- (c) A sale or transfer of a material amount of assets of the Issuer or any of its subsidiaries;
- (d) Any change in the present board of directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board;
- (e) Any material change in the present capitalization or dividend policy of the Issuer;
- (f) Any other material change in the Issuer's business or corporate structure;
- (g) Changes in the Issuer's charter, bylaws or instruments corresponding thereto or other actions that may impede the acquisition of control of the Issuer by any person;
- (h) Causing a class of securities of the Issuer to be delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association;
- (i) A class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Securities Exchange Act of 1934, as amended; or
- (j) Any action similar to any of those enumerated above.

Item 5. Interest in Securities of the Issuer.

The aggregate percentage of shares of Common Stock reported beneficially owned by each person named herein is determined in accordance with Securities and Exchange Commission (SEC) rules and is based upon 14,262,276 shares of the Issuer's Common Stock outstanding. 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) As of the closing of business on January 31, 2013, the Fund beneficially owned 3,301,127 shares of Common Stock, representing a beneficial ownership of approximately 23.1% of the shares of 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:	3,301,127
	3. Sole power to dispose or direct the disposition:	0
	4. Shared power to dispose or direct the disposition:	3,301,127

B. Longwood Fund GP, LLC

(a) As of the closing of business on January 31, 2013, the General Partner beneficially owned 3,301,127 shares of Common Stock, representing a beneficial ownership of approximately 23.1% of the shares of 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:	3,301,127
	3. Sole power to dispose or direct the disposition:	0
	4. Shared power to dispose or direct the disposition:	3,301,127

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

(a) As of the closing of business on January 31, 2013, Christoph Westphal, M.D., Ph.D., beneficially owned 4,003,054 shares of Common Stock, representing a beneficial ownership of approximately 28.1% of the shares of Common Stock. 701,927 of these shares are held by Dr. Westphal personally and 3,301,127 are held by the Fund.

(b)	1. Sole power to vote or direct vote:	701,927
	2. Shared power to vote or direct vote:	3,301,127
	3. Sole power to dispose or direct the disposition:	701,927
	4. Shared power to dispose or direct the disposition:	3,301,127

D. Richard Aldrich

(a) As of the closing of business on January 31, 2013, Richard Aldrich beneficially owned 4,003,053 shares of Common Stock, representing a beneficial ownership of approximately 28.1% of the shares of 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 3,301,127 are held by the Fund. The trustee of the Richard H. Aldrich Irrevocable Trust of 2011 is Richard Aldrich's wife, Nicole Aldrich, 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:	3,476,608
	3. Sole power to dispose or direct the disposition:	526,445
	4. Shared power to dispose or direct the disposition:	3,476,608

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

(a) As of the closing of business on January 31, 2013, Michelle Dipp, M.D., Ph.D. beneficially owned 4,040,287 shares of Common Stock, representing a beneficial ownership of approximately 28.2% of the shares of Common Stock. 717,953 of these shares are held by Dr. Dipp directly, 16,026 represent restricted

stock units that vest within 60 days of January 31, 2013, 21,207 represent options that vest within 60 days of January 31, 2013 and 3,301,127 of these shares are held by the Fund.

(b)	1. Sole power to vote or direct vote:	739,160
	2. Shared power to vote or direct vote:	3,301,127
	3. Sole power to dispose or direct the disposition:	739,160
	4. Shared power to dispose or direct the disposition:	3,301,127

F. Jonathan Tilly, Ph.D.

(a) As of the closing of business on January 31, 2013, Jonathan Tilly, Ph.D. beneficially owned 701,926 shares of Common Stock, representing a beneficial ownership of approximately 4.9% of the shares of Common Stock. All such shares are held by Dr. Tilly directly.

(b)	1. Sole power to vote or direct vote:	701,926
	2. Shared power to vote or direct vote:	0
	3. Sole power to dispose or direct the disposition:	701,926
	4. Shared power to dispose or direct the disposition:	0

The aggregate number of shares of Common Stock beneficially owned collectively by the parties to the Voting Agreement, including the Reporting Persons, based on available information, is 9,607,802, which represents approximately 67.4% of the outstanding Common Stock.

The share ownership reported for the Reporting Persons on this Schedule 13D does not include any shares owned by the other parties to the Voting Agreement, and each of the Reporting Persons disclaims beneficial ownership of any shares owned by the other parties to the Voting Agreement.

(c) See Item 3.

(d) Not applicable.

(e) Dr. Tilly is not the beneficial owner of more than five percent of the Common Stock of the Issuer.

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

Voting Agreement

Pursuant to the Voting Agreement, until such time as the Issuer's Common Stock is traded on a national securities exchange, parties to the Voting Agreement have agreed to vote their shares in such a way as to ensure that one designee of each of the Issuer's lead investors will serve on the board of directors of the Issuer for so long as the entity remains a significant investor, which is defined as an investor who initially purchased at least 270,000 shares of the Issuer's Series A or Series B preferred stock and continues to hold at least 20% of such shares, including any shares of Common Stock issued upon conversion of such shares.

Amended and Restated Investors' Rights Agreement

The Reporting Persons (other than Dr. Tilly) and certain other stockholders of the Issuer have entered into an Amended and Restated Investors' Rights Agreement dated March 29, 2012 (the "Investors' Rights Agreement") with the Issuer. The Investors' Rights Agreement provides these holders various rights, including the right to have the Issuer file registration statements covering their shares of Common Stock issued upon conversion of their preferred stock or request that such shares be covered by a registration statement that the Issuer is otherwise filing, the right to receive certain financial information and the right to participate in future equity offerings.

Demand Registration Rights

Pursuant to the Investors' Rights Agreement, at any time after (1) March 29, 2014, (2) 180 days after the effective date of the Issuer's first underwritten firm commitment public offering of Common Stock under the Securities Act of 1933, as amended (the "Securities Act") or (3) 180 days after the first date on which the Issuer's Common Stock commences trading on a national securities exchange, whichever is earliest, the holders of at least 20% of the

aggregate number of shares of Common Stock issued upon conversion of shares of the Issuer's Series A preferred stock and Series B preferred stock may require that the Issuer file a registration statement with regard to such shares. The Issuer is not obligated to file a registration statement pursuant to this provision on more than two occasions.

Form S-3 Registration Rights

Pursuant to the Investors' Rights Agreement, at any time after the Issuer becomes eligible to file a registration statement on Form S-3, subject to specified limitations set forth in the Investor Rights Agreement, the holders of Common Stock issued upon conversion of the Issuer's Series A preferred stock and Series B preferred stock may request that the Issuer register on Form S-3 all or a portion of the registrable shares so long as the total amount of the shares being registered has an aggregate offering price of at least \$3,000,000, based on then current market price. The Issuer is not obligated to file a Form S-3 pursuant to this provision if it has effected two registrations upon such holders' request within the 12 month period immediately preceding the date of such request.

Piggyback Registration Rights

Pursuant to the Investors' Rights Agreement, if the Issuer proposes to file a registration statement under the Securities Act, other than pursuant to the demand registration rights described above, the holders of shares of Common Stock issued upon conversion of the Issuer's Series A preferred stock and Series B preferred stock will be entitled to notice of the registration and have the right to require the Issuer to register all or a portion of the registrable shares then held by them, subject to the Issuer's right and the right of the Issuer's underwriters to reduce the number of shares proposed to be registered in view of market conditions.

Expenses of Registration

The Issuer will pay all expenses, other than underwriting discounts and commissions, related to demand registrations, Form S-3 registrations and piggyback registrations, including the reasonable fees of one special counsel of the investors.

Expiration of Registration Rights

The demand, Form S-3 and piggyback registration rights described above shall terminate upon the earlier of (1) the date such shares may be sold under Rule 144 or a similar Securities Act exemption without limitation during a three month period without registration or (2) the fifth anniversary of the date on which the Issuer's Common Stock is first traded on a national securities exchange.

Lock-up Agreements

Form 10 Lock-Up

The Reporting Persons, as well as other holders of shares of the Issuer's Common Stock issued upon conversion of the Issuer's Series A preferred stock and each of the Issuer's founders and officers and substantially all of its directors and current employees, have agreed not to, without the Issuer's prior written consent, during the period beginning on July 17, 2012 and ending on the earlier of (1) in the case of the Issuer's founders, directors and officers (including Dr. Dipp, Mr. Aldrich, Dr. Westphal, and Dr. Tilly), on the earlier of (a) 270 days following the date on which the Issuer's Common Stock commences trading on a national securities exchange and (b) March 29, 2015, and (2) in the case of the holders of the Issuer's Common Stock issued upon conversion of the Issuer's Series A preferred stock (including the Fund), on the earlier of (a) 180 days following the date on which the Issuer's Common Stock commences trading on a national securities exchange and (b) March 29, 2014:

- lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right, or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of the Issuer's Common Stock; or

- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Issuer's Common Stock.

These lock-up provisions will not apply to, among other things (1) certain shares, including shares of the Issuer's Common Stock acquired in open market transactions after the Issuer's Common Stock is traded on a national securities exchange, (2) certain transfers and repurchases and (3) the exercise of options granted under the Issuer's equity incentive plans.

IPO Lock-Up

The Reporting Persons, as well as other holders of certain shares of the Issuer's Common Stock, have agreed that, if the Issuer registers shares of its capital stock in an initial firm commitment underwritten public offering, they will not, without the prior written consent of the managing underwriter, during the period beginning on the date of the final prospectus for such registration statement and ending on a date specified by the Issuer and the managing underwriter (not to exceed 180 days thereafter with limited exceptions):

- lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right, or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of the Issuer's Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for shares of the Issuer's Common Stock; or
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities.

These lock-up provisions will not apply to, among other things, shares of Common Stock acquired in such offering or in open market transactions after such offering.

Restricted Stock Agreements

Dr. Dipp, Mr. Aldrich, Dr. Westphal and Dr. Tilly are each party to a restricted stock agreement with the Issuer, pursuant to which the shares of the Issuer's Common Stock that each such Reporting Person acquired in July 2011 are subject to a vesting schedule and other restrictions on transfer and otherwise.

The foregoing description of the terms of the Voting Agreement, the Investors' Rights Agreement, the lock-up agreements contained in such documents and the restricted stock agreements is intended as a summary only and is qualified in its entirety by reference to the Voting Agreement, the Investors' Rights Agreement, the restricted stock agreements, and the lock-up agreements contained in such documents, which are filed as exhibits to this Schedule 13D and incorporated by reference herein.

Other than as described in this Schedule 13D, to the best of the Reporting Persons' knowledge, there are no other contracts, arrangements, understandings or relationships (legal or otherwise) among the persons named in Item 2 and between such persons and any person with respect to any securities of the Issuer.

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).

SCHEDULE 13D

CUSIP No. 69014Q 101

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: February 8, 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, M.D., Ph.D.
Michelle Dipp, M.D., Ph.D., Manager

LONGWOOD FUND GP, LLC

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

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

/s/ Richard Aldrich
Richard Aldrich

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

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