

Verastem, Inc.
Form SC 13D
February 10, 2012

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No.)*

Verastem, Inc.
(Name of issuer)

Common Stock
(Title of class of securities)

92337C104
(CUSIP number)

Luke B. Evin

Edgar Filing: Verastem, Inc. - Form SC 13D

MPM Asset Management

The John Hancock Tower

200 Clarendon Street, 54th Floor

Boston, MA 02116

Telephone: (617) 425-9200

(Name, address and telephone number of person authorized to receive notices and communications)

February 1, 2012

(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).

SCHEDULE 13D

CUSIP No. **92337C104**

Page 2 of 29 Pages

(1) Names of reporting persons

MPM BioVentures V, L.P.

(2) Check the appropriate box if a member of a group (see instructions)

(a) (b) (1)

(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)

(6) Citizenship or place of organization

Delaware

(7) Sole voting power

Number of

shares 2,029,593
(8) Shared voting power

beneficially

owned by 0
each (9) Sole dispositive power

reporting

person 2,029,593
(10) Shared dispositive power

with:

0

Edgar Filing: Verastem, Inc. - Form SC 13D

(11) Aggregate amount beneficially owned by each reporting person

2,029,593

(12) Check if the aggregate amount in Row (11) excludes certain shares (see instructions)

(13) Percent of class represented by amount in Row (11)

9.6%(2)

(14) Type of reporting person (see instructions)

PN

- (1) This schedule is filed by MPM BioVentures V, L.P. (BV V), MPM Asset Management Investors BV5 LLC (AM LLC), MPM BioVentures V GP LLC (BV V GP), MPM BioVentures V LLC (BV V LLC) (collectively, the MPM Entities) and Ansbert Gadicke, Luke Evnin, Steven St. Peter, Todd Foley, James Paul Scopa, Vaughn Kailian and John Vander Vort (collectively, the Listed Persons) and together with the MPM Entities, the Filing Persons). The Listed Persons are members of BV V LLC and AM LLC. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.
- (2) This percentage is calculated based upon 21,059,116, shares of the Issuer s common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 20,234,116 shares of the Issuer s Common Stock outstanding upon completion of the Issuer s initial public offering, as set forth in the Issuer s final prospectus dated January 26, 2012 with respect to such offering, filed with the Securities and Exchange Commission on January 27, 2012 and (ii) 825,000 shares of Common Stock issued pursuant to the exercise of the underwriter s over-allotment option in connection with such offering.

SCHEDULE 13D

CUSIP No. **92337C104**

Page 3 of 29 Pages

(1) Names of reporting persons

MPM Asset Management Investors BV5 LLC

(2) Check the appropriate box if a member of a group (see instructions)

(a) (b) (1)

(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)

(6) Citizenship or place of organization

Delaware

(7) Sole voting power

Number of

shares 3,740
(8) Shared voting power

beneficially

owned by 0
each (9) Sole dispositive power

reporting

person 3,740
(10) Shared dispositive power

with:

0

Edgar Filing: Verastem, Inc. - Form SC 13D

(11) Aggregate amount beneficially owned by each reporting person

3,740

(12) Check if the aggregate amount in Row (11) excludes certain shares (see instructions)

(13) Percent of class represented by amount in Row (11)

0.0%(2)

(14) Type of reporting person (see instructions)

OO

- (1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.
- (2) This percentage is calculated based upon 21,059,116, shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 20,234,116 shares of the Issuer's Common Stock outstanding upon completion of the Issuer's initial public offering, as set forth in the Issuer's final prospectus dated January 26, 2012 with respect to such offering, filed with the Securities and Exchange Commission on January 27, 2012 and (ii) 825,000 shares of Common Stock issued pursuant to the exercise of the underwriter's over-allotment option in connection with such offering.

SCHEDULE 13D

CUSIP No. **92337C104**

Page 4 of 29 Pages

(1) Names of reporting persons

MPM BioVentures V GP LLC

(2) Check the appropriate box if a member of a group (see instructions)

(a) (b) (1)

(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)

(6) Citizenship or place of organization

Delaware

(7) Sole voting power

Number of

shares 0
(8) Shared voting power

beneficially

owned by 2,029,593(2)
(9) Sole dispositive power
each

reporting

person 0
(10) Shared dispositive power

with:

2,029,593(2)

Edgar Filing: Verastem, Inc. - Form SC 13D

(11) Aggregate amount beneficially owned by each reporting person

2,029,593(2)

(12) Check if the aggregate amount in Row (11) excludes certain shares (see instructions)

(13) Percent of class represented by amount in Row (11)

9.6%(3)

(14) Type of reporting person (see instructions)

OO

- (1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.
- (2) Represents shares of Common Stock held by BV V. BV V GP and BV V LLC are the direct and indirect general partners of BV V.
- (3) This percentage is calculated based upon 21,059,116, shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 20,234,116 shares of the Issuer's Common Stock outstanding upon completion of the Issuer's initial public offering, as set forth in the Issuer's final prospectus dated January 26, 2012 with respect to such offering, filed with the Securities and Exchange Commission on January 27, 2012 and (ii) 825,000 shares of Common Stock issued pursuant to the exercise of the underwriter's over-allotment option in connection with such offering.

SCHEDULE 13D

CUSIP No. 92337C104

Page 5 of 29 Pages

(1) Names of reporting persons

MPM BioVentures V LLC

(2) Check the appropriate box if a member of a group (see instructions)

(a) (b) (1)

(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)

(6) Citizenship or place of organization

Delaware

(7) Sole voting power

Number of

shares 0
(8) Shared voting power

beneficially

owned by 2,033,333(2)
each (9) Sole dispositive power

reporting

person 0
(10) Shared dispositive power

with:

2,033,333(2)

Edgar Filing: Verastem, Inc. - Form SC 13D

(11) Aggregate amount beneficially owned by each reporting person

2,033,333(2)

(12) Check if the aggregate amount in Row (11) excludes certain shares (see instructions)

(13) Percent of class represented by amount in Row (11)

9.7%(3)

(14) Type of reporting person (see instructions)

OO

- (1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.
- (2) Includes 2,029,592 shares of Common Stock held by BV V and 3,740 shares of Common Stock held by AM LLC. BV V GP and BV V LLC are the direct and indirect general partners of BV V and BV V LLC is the manager of AM LLC.
- (3) This percentage is calculated based upon 21,059,116, shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 20,234,116 shares of the Issuer's Common Stock outstanding upon completion of the Issuer's initial public offering, as set forth in the Issuer's final prospectus dated January 26, 2012 with respect to such offering, filed with the Securities and Exchange Commission on January 27, 2012 and (ii) 825,000 shares of Common Stock issued pursuant to the exercise of the underwriter's over-allotment option in connection with such offering.

SCHEDULE 13D

CUSIP No. 92337C104

Page 6 of 29 Pages

(1) Names of reporting persons

Ansbert Gadicke

(2) Check the appropriate box if a member of a group (see instructions)

(a) (b) (1)

(3) SEC use only

(4) Source of funds (see instructions)

OO

(5) Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

(6) Citizenship or place of organization

United States

(7) Sole voting power

Number of

shares 0
(8) Shared voting power

beneficially

owned by 2,033,333(2)
each (9) Sole dispositive power

reporting

person 0
(10) Shared dispositive power

with:

2,033,333(2)

Edgar Filing: Verastem, Inc. - Form SC 13D

(11) Aggregate amount beneficially owned by each reporting person

2,033,333(2)

(12) Check if the aggregate amount in Row (11) excludes certain shares (see instructions)

(13) Percent of class represented by amount in Row (11)

9.7%(3)

(14) Type of reporting person (see instructions)

IN

- (1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.
- (2) Includes 2,029,593 shares of Common Stock held by BV V and 3,740 shares of Common Stock held by AM LLC. BV V GP and BV V LLC are the direct and indirect general partners of BV V and BV V LLC is the manager of AM LLC. The Reporting Person is a member of BV V LLC.
- (3) This percentage is calculated based upon 21,059,116, shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 20,234,116 shares of the Issuer's Common Stock outstanding upon completion of the Issuer's initial public offering, as set forth in the Issuer's final prospectus dated January 26, 2012 with respect to such offering, filed with the Securities and Exchange Commission on January 27, 2012 and (ii) 825,000 shares of Common Stock issued pursuant to the exercise of the underwriter's over-allotment option in connection with such offering.

SCHEDULE 13D

CUSIP No. **92337C104**

Page 7 of 29 Pages

(1) Names of reporting persons

Luke Evin

(2) Check the appropriate box if a member of a group (see instructions)

(a) (b) (1)

(3) SEC use only

(4) Source of funds (see instructions)

OO

(5) Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

(6) Citizenship or place of organization

United States

(7) Sole voting power

Number of

shares (8) Shared voting power

beneficially

owned by
each (9) Sole dispositive power

reporting

person (10) Shared dispositive power

with:

Edgar Filing: Verastem, Inc. - Form SC 13D

(11) Aggregate amount beneficially owned by each reporting person

2,033,333(2)

(12) Check if the aggregate amount in Row (11) excludes certain shares (see instructions)

(13) Percent of class represented by amount in Row (11)

9.7%(3)

(14) Type of reporting person (see instructions)

IN

- (1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.
- (2) Includes 2,029,593 shares of Common Stock held by BV V and 3,740 shares of Common Stock held by AM LLC. BV V GP and BV V LLC are the direct and indirect general partners of BV V and BV V LLC is the manager of AM LLC. The Reporting Person is a member of BV V LLC.
- (3) This percentage is calculated based upon 21,059,116, shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 20,234,116 shares of the Issuer's Common Stock outstanding upon completion of the Issuer's initial public offering, as set forth in the Issuer's final prospectus dated January 26, 2012 with respect to such offering, filed with the Securities and Exchange Commission on January 27, 2012 and (ii) 825,000 shares of Common Stock issued pursuant to the exercise of the underwriter's over-allotment option in connection with such offering.

SCHEDULE 13D

CUSIP No. 92337C104

Page 8 of 29 Pages

(1) Names of reporting persons

Steven St. Peter

(2) Check the appropriate box if a member of a group (see instructions)

(a) (b) (1)

(3) SEC use only

(4) Source of funds (see instructions)

OO

(5) Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

(6) Citizenship or place of organization

United States

(7) Sole voting power

Number of

shares 0
(8) Shared voting power

beneficially

owned by 2,033,333(2)
each (9) Sole dispositive power

reporting

person 0
(10) Shared dispositive power

with:

2,033,333(2)

Edgar Filing: Verastem, Inc. - Form SC 13D

(11) Aggregate amount beneficially owned by each reporting person

2,033,333(2)

(12) Check if the aggregate amount in Row (11) excludes certain shares (see instructions)

(13) Percent of class represented by amount in Row (11)

9.7%(3)

(14) Type of reporting person (see instructions)

IN

- (1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.
- (2) Includes 2,029,593 shares of Common Stock held by BV V and 3,740 shares of Common Stock held by AM LLC. BV V GP and BV V LLC are the direct and indirect general partners of BV V and BV V LLC is the manager of AM LLC. The Reporting Person is a member of BV V LLC.
- (3) This percentage is calculated based upon 21,059,116, shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 20,234,116 shares of the Issuer's Common Stock outstanding upon completion of the Issuer's initial public offering, as set forth in the Issuer's final prospectus dated January 26, 2012 with respect to such offering, filed with the Securities and Exchange Commission on January 27, 2012 and (ii) 825,000 shares of Common Stock issued pursuant to the exercise of the underwriter's over-allotment option in connection with such offering.

SCHEDULE 13D

CUSIP No. 92337C104

Page 9 of 29 Pages

(1) Names of reporting persons

Todd Foley

(2) Check the appropriate box if a member of a group (see instructions)

(a) (b) (1)

(3) SEC use only

(4) Source of funds (see instructions)

OO

(5) Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

(6) Citizenship or place of organization

United States

(7) Sole voting power

Number of

shares 0
(8) Shared voting power

beneficially

owned by 2,033,333(2)
each (9) Sole dispositive power

reporting

person 0
(10) Shared dispositive power

with:

2,033,333(2)

Edgar Filing: Verastem, Inc. - Form SC 13D

(11) Aggregate amount beneficially owned by each reporting person

2,033,333(2)

(12) Check if the aggregate amount in Row (11) excludes certain shares (see instructions)

(13) Percent of class represented by amount in Row (11)

9.7%(3)

(14) Type of reporting person (see instructions)

IN

- (1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.
- (2) Includes 2,029,593 shares of Common Stock held by BV V and 3,740 shares of Common Stock held by AM LLC. BV V GP and BV V LLC are the direct and indirect general partners of BV V and BV V LLC is the manager of AM LLC. The Reporting Person is a member of BV V LLC.
- (3) This percentage is calculated based upon 21,059,116, shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 20,234,116 shares of the Issuer's Common Stock outstanding upon completion of the Issuer's initial public offering, as set forth in the Issuer's final prospectus dated January 26, 2012 with respect to such offering, filed with the Securities and Exchange Commission on January 27, 2012 and (ii) 825,000 shares of Common Stock issued pursuant to the exercise of the underwriter's over-allotment option in connection with such offering.

SCHEDULE 13D

CUSIP No. 92337C104

Page 10 of 29 Pages

(1) Names of reporting persons

James Paul Scopa

(2) Check the appropriate box if a member of a group (see instructions)

(a) (b) (1)

(3) SEC use only

(4) Source of funds (see instructions)

OO

(5) Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

(6) Citizenship or place of organization

United States

(7) Sole voting power

Number of

shares 0
(8) Shared voting power

beneficially

owned by 2,033,333(2)
each (9) Sole dispositive power

reporting

person 0
(10) Shared dispositive power

with:

2,033,333(2)

Edgar Filing: Verastem, Inc. - Form SC 13D

(11) Aggregate amount beneficially owned by each reporting person

2,033,333(2)

(12) Check if the aggregate amount in Row (11) excludes certain shares (see instructions)

(13) Percent of class represented by amount in Row (11)

9.7%(3)

(14) Type of reporting person (see instructions)

IN

- (1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.
- (2) Includes 2,029,593 shares of Common Stock held by BV V and 3,740 shares of Common Stock held by AM LLC. BV V GP and BV V LLC are the direct and indirect general partners of BV V and BV V LLC is the manager of AM LLC. The Reporting Person is a member of BV V LLC.
- (3) This percentage is calculated based upon 21,059,116, shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 20,234,116 shares of the Issuer's Common Stock outstanding upon completion of the Issuer's initial public offering, as set forth in the Issuer's final prospectus dated January 26, 2012 with respect to such offering, filed with the Securities and Exchange Commission on January 27, 2012 and (ii) 825,000 shares of Common Stock issued pursuant to the exercise of the underwriter's over-allotment option in connection with such offering.

SCHEDULE 13D

CUSIP No. 92337C104

Page 11 of 29 Pages

(1) Names of reporting persons

Vaughn M. Kailian

(2) Check the appropriate box if a member of a group (see instructions)

(a) (b) (1)

(3) SEC use only

(4) Source of funds (see instructions)

OO

(5) Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

(6) Citizenship or place of organization

United States

(7) Sole voting power

Number of

shares 0
(8) Shared voting power

beneficially

owned by 2,033,333(2)
(9) Sole dispositive power
each

reporting

person 0
(10) Shared dispositive power

with:

2,033,333(2)

Edgar Filing: Verastem, Inc. - Form SC 13D

(11) Aggregate amount beneficially owned by each reporting person

2,033,333(2)

(12) Check if the aggregate amount in Row (11) excludes certain shares (see instructions)

(13) Percent of class represented by amount in Row (11)

9.7%(3)

(14) Type of reporting person (see instructions)

IN

- (1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.
- (2) Includes 2,029,593 shares of Common Stock held by BV V and 3,740 shares of Common Stock held by AM LLC. BV V GP and BV V LLC are the direct and indirect general partners of BV V and BV V LLC is the manager of AM LLC. The Reporting Person is a member of BV V LLC.
- (3) This percentage is calculated based upon 21,059,116, shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 20,234,116 shares of the Issuer's Common Stock outstanding upon completion of the Issuer's initial public offering, as set forth in the Issuer's final prospectus dated January 26, 2012 with respect to such offering, filed with the Securities and Exchange Commission on January 27, 2012 and (ii) 825,000 shares of Common Stock issued pursuant to the exercise of the underwriter's over-allotment option in connection with such offering.

SCHEDULE 13D

CUSIP No. 92337C104

Page 12 of 29 Pages

(1) Names of reporting persons

John Vander Vort

(2) Check the appropriate box if a member of a group (see instructions)

(a) (b) (1)

(3) SEC use only

(4) Source of funds (see instructions)

OO

(5) Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

(6) Citizenship or place of organization

United States

(7) Sole voting power

Number of

shares (8) Shared voting power

beneficially

owned by
each (9) Sole dispositive power

reporting

person (10) Shared dispositive power

with:

Edgar Filing: Verastem, Inc. - Form SC 13D

(11) Aggregate amount beneficially owned by each reporting person

2,033,333(2)

(12) Check if the aggregate amount in Row (11) excludes certain shares (see instructions)

(13) Percent of class represented by amount in Row (11)

9.7%(3)

(14) Type of reporting person (see instructions)

IN

- (1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.
- (2) Includes 2,029,593 shares of Common Stock held by BV V and 3,740 shares of Common Stock held by AM LLC. BV V GP and BV V LLC are the direct and indirect general partners of BV V and BV V LLC is the manager of AM LLC. The Reporting Person is a member of BV V LLC.
- (3) This percentage is calculated based upon 21,059,116, shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 20,234,116 shares of the Issuer's Common Stock outstanding upon completion of the Issuer's initial public offering, as set forth in the Issuer's final prospectus dated January 26, 2012 with respect to such offering, filed with the Securities and Exchange Commission on January 27, 2012 and (ii) 825,000 shares of Common Stock issued pursuant to the exercise of the underwriter's over-allotment option in connection with such offering.

SCHEDULE 13D

CUSIP No. 92337C104

Page 13 of 29 Pages

Item 1. Security and Issuer.

This Schedule 13D (this Schedule 13D) relates to the common stock, par value \$0.0001 per share (the Common Stock), of Verastem, Inc. (the Issuer). The Issuer's principal executive office is located at 215 First Street, Suite 440, Cambridge, MA 02142.

Item 2. Identity and Background

(a) The entities and persons filing this statement are MPM BioVentures V, L.P. (BV V), MPM Asset Management Investors BV5 LLC (AM LLC), MPM BioVentures V GP LLC (BV V GP), MPM BioVentures V LLC (BV V LLC) (collectively, the MPM Entities) and Ansbert Gadick, Luke Evnin, Steven St. Peter, Todd Foley, James Paul Scopa, Vaughn Kailian and John Vander Vort (collectively, the Listed Persons and together with the MPM Entities, the Filing Persons).

(b) The address of the principal place of business for each of the MPM Entities and Ansbert Gadick, Luke Evnin, Steven St. Peter, Vaughn Kailian, Todd Foley and John Vander Vort is The John Hancock Tower, 200 Clarendon Street, 54th Floor, Boston, MA 02116 and the address of the principal place of business for James Paul Scopa is 601 Gateway Blvd., Suite 350, S. San Francisco, CA 94080.

(c) The principal business of each of the Filing Persons is the venture capital investment business.

(d) During the last five years, none of the Filing Persons has been convicted in any criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) During the last five years, none of the Filing Persons 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) Each of the Listed Persons is a United States citizen and each of the MPM Entities is a Delaware limited partnership or limited liability company.

In accordance with the provisions of General Instruction C to Schedule 13D, information concerning the managers and each other person controlling the general partners of the MPM Entities required by Item 2 of Schedule 13D is listed on Schedule 1 hereto and is incorporated by reference herein.

Item 3. Source and Amount of Funds or Other Consideration

On January 26, 2012, the Registration Statement on Form S-1 filed with the Securities and Exchange Commission by the Issuer (File No. 333-177677) in connection with its initial public offering of 5,500,000 shares of Common Stock was declared effective. The closing of the offering took place on February 1, 2012, and at such closing the MPM Entities purchased an aggregate of 100,000 shares of Common Stock at the initial public offering price of \$10.00 per share. The source of funds for such purchase was the working capital of the MPM Entities and capital contributions made to the MPM Entities by its partners.

SCHEDULE 13D

CUSIP No. 92337C104

Page 14 of 29 Pages

Item 4. Purpose of Transaction

The MPM Entities purchased the shares of Common Stock of the Issuer in the initial public offering for investment purposes.

Ansbert Gadicke is a member of the Board of Directors of the Issuer and is also a member of BV V LLC.

Subject to applicable legal requirements, one or more of the Filing Persons may purchase additional securities of the Issuer from time to time in open market or private transactions, depending on their evaluation of the Issuer's business, prospects and financial condition, the market for the Issuer's securities, other developments concerning the Issuer, the reaction of the Issuer to the Filing Persons' ownership of the Issuer's securities, other opportunities available to the Filing Persons, and general economic, money market and stock market conditions. In addition, depending upon the factors referred to above, the Filing Persons may dispose of all or a portion of their securities of the Issuer at any time. Each of the Filing Persons reserves the right to increase or decrease its holdings on such terms and at such times as each may decide.

Other than as described above in this Item 4, none of the Filing Persons have any plan or proposal relating to or that would result in: (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 terms 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) any changes in the Issuer's charter, by-laws or instruments corresponding thereto or other actions which 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 Exchange Act; or (j) any action similar to those enumerated above.

SCHEDULE 13D

CUSIP No. 92337C104

Page 15 of 29 Pages

Item 5. Interest in Securities of the Issuer

(a) (b) The following information with respect to the ownership of the Common Stock of the Issuer by the Filing Persons is provided as of February 1, 2012:

| Reporting Person | September 30, Shares Held Directly | September 30, Sole Voting Power | September 30, Shared Voting Power | September 30, Sole Dispositive Power | September 30, Shared Dispositive Power | September 30, Beneficial Ownership | September 30, Percentage of Class (1) |
|------------------------|--|---------------------------------------|--|---|---|--|---|
| BV V | 2,029,593 | 2,029,593 | 0 | 2,029,593 | 0 | 2,029,593 | 9.6% |
| AM LLC | 3,740 | 3,740 | 0 | 3,740 | 0 | 3,740 | 0.0% |
| BV V GP(2) | 0 | 0 | 2,029,593 | 0 | 2,029,593 | 2,029,593 | 9.6% |
| BV V LLC(3) | 0 | 0 | 2,033,333 | 0 | 2,033,333 | 2,033,333 | 9.7% |
| Ansbert Gadicke(4) | 0 | 0 | 2,033,333 | 0 | 2,033,333 | 2,033,333 | 9.7% |
| Luke Evnin(4) | 0 | 0 | 2,033,333 | 0 | 2,033,333 | 2,033,333 | 9.7% |
| Steven St. Peter(4) | 0 | 0 | 2,033,333 | 0 | 2,033,333 | 2,033,333 | 9.7% |
| Todd Foley(4) | 0 | 0 | 2,033,333 | 0 | 2,033,333 | 2,033,333 | 9.7% |
| James Paul Scopa(4) | 0 | | 2,033,333 | 0 | 2,033,333 | 2,033,333 | 9.7% |
| Vaughn Kailian(4) | 0 | | 2,033,333 | 0 | 2,033,333 | 2,033,333 | 9.7% |
| John Vander Vort(4) | 0 | 0 | 2,033,333 | 0 | 2,033,333 | 2,033,333 | 9.7% |

- (1) This percentage is calculated based upon 21,059,116, shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 20,234,116 shares of the Issuer's Common Stock outstanding upon completion of the Issuer's initial public offering, as set forth in the Issuer's final prospectus dated January 26, 2012 with respect to such offering, filed with the Securities and Exchange Commission on January 27, 2012 and (ii) 825,000 shares of Common Stock issued pursuant to the exercise of the underwriter's over-allotment option in connection with such offering.
- (2) Includes securities held by BV V. BV V GP and BV V LLC are the direct and indirect general partners of BV V.
- (3) Includes securities held by BV V and AM LLC. BV V GP and BV V LLC are the direct and indirect general partners of BV V and BV V LLC is the manager of AM LLC.
- (4) Includes securities held by BV V and AM LLC. The Reporting Person is a member of BV V LLC.

(c) The information provided in Item 3 is hereby incorporated by reference. In addition, on February 1, 2012, the MPM Entities acquired an aggregate of 1,933,333 shares of Common Stock of the Issuer upon the automatic conversion of preferred stock of the Issuer in connection with the closing of the Issuer's initial public offering.

Each Filing Person disclaims membership in a group. Each Filing Person also disclaims beneficial ownership of any shares of the Issuer, except for the shares set forth in the table above next to the respective Filing Person's name in subsection (b) of this Item 5.

(d) Inapplicable.

(e) Inapplicable.

SCHEDULE 13D

CUSIP No. 92337C104

Page 16 of 29 Pages

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

The MPM Entities and other stockholders of the Issuer have entered into a Second Amended and Restated Investors Rights Agreement dated November 1, 2011 (the Investor Rights Agreement) with the Issuer. Subject to the terms of the Investor Rights Agreement, holders of shares having registration rights (Registrable Securities) can demand that the Issuer file a registration statement or request that their shares be covered by a registration statement that the Issuer is otherwise filing.

Demand Registration Rights

If, at any time after June 24, 2012, the Issuer shall receive a written request from the Holders (as defined in the Investor Rights Agreement) of at least a majority of the Registrable Securities then outstanding (or a lesser percent if the anticipated aggregate offering price, net of Selling Expenses, would exceed \$5,000,000) (the Initiating Holders) that the Issuer file a Form S-1 registration statement under the Securities Act of 1933 (the Securities Act), then the Company shall (i) within ten (10) days after the date such request is given, give notice thereof (the Demand Notice) to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within sixty (60) days after the date such request is given by the Initiating Holders, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders.

The Issuer shall not be obligated to effect, or to take any action to effect, any demand registration after the Issuer has effected two Form S-1 demand registrations.

Form S-3 Demand Registration Rights

If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from Holders of at least thirty percent (30%) of the Registrable Securities then outstanding that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price, net of Selling Expenses, of at least \$1,000,000, then the Company shall (i) within ten (10) days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within forty-five (45) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities requested to be included in such registration by any other Holders.

The Issuer shall not be obligated to effect, or to take any action to effect, any Form S-3 demand registration if the Issuer has effected two Form S-3 demand registrations within the twelve month period immediately preceding the date of such request.

Piggyback Registration Rights

If the Issuer proposes to register any of its stock in connection with the public offering of such securities by the Issuer or on behalf of selling stockholders, the Issuer shall, at such time, promptly give each Holder written notice of such registration. Upon the written request of each Holder, the Issuer shall, subject to the certain limitations, use its reasonable best efforts to cause to be registered all of the Registrable Securities that each such Holder has requested to be registered.

SCHEDULE 13D

CUSIP No. **92337C104**

Page 17 of 29 Pages

Expenses of Registration

Subject to certain limitations, the Issuer will pay all registration expenses, other than underwriting discounts and commissions, related to any registration effected pursuant to the Investor Rights Agreement.

Indemnification

The Investor Rights Agreement contains customary cross-indemnification provisions, pursuant to which the Issuer is obligated to indemnify the selling stockholders in the event of material misstatements or omissions in the registration statement attributable to the Issuer, and the selling stockholders are obligated to indemnify the Issuer for material misstatements or omissions attributable to them.

Termination

No Holder shall be entitled to exercise any registration rights after the earlier of:

the closing of a Deemed Liquidation Event (as such term is defined in the Company's Certificate of Incorporation); and

the fifth anniversary of the Issuer's initial public offering.

Lock-up Agreements

The MPM Entities and Mr. Gadicke, along with all of the Issuer's officers, directors, and holders of substantially all of the Issuer's common stock, have entered into letter agreements (the **Lock-up Agreements**), whereby they have agreed, subject to certain exceptions, not to offer, sell, contract to sell, pledge or otherwise dispose of or hedge any of its common stock or securities convertible into or exchangeable for shares of common stock for a 180-day period beginning on January 26, 2012 and ending on June 24, 2012 except with the prior written consent of UBS Securities LLC and Leerink Swann LLC on behalf of the underwriters.

The 180-day restricted period under the agreements with the underwriters described above will be automatically extended if: (1) during the period that begins on the date that is 15 calendar days plus 3 business days before the last day of the 180-day restricted period and ends on the last day of the 180-day restricted period, the Issuer issues an earnings release or material news or a material event relating to the Issuer occurs; or (2) prior to the expiration of the 180-day restricted period, the Issuer announces that it will release earnings results or becomes aware that material news or a material event relating to the Issuer will occur during the 16-day period beginning on the last day of the 180-day restricted period, in which case the restrictions described in the preceding paragraph will continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

The foregoing description of the terms of the Investor Rights Agreement and the Lock-up Agreement is intended as a summary only and is qualified in its entirety by reference to the Investor Rights Agreement and Form of Lock-up Agreement, which are filed as exhibits to this Schedule 13D and incorporated by reference herein.

SCHEDULE 13D

CUSIP No. **92337C104**

Page 18 of 29 Pages

Other than as described in this Schedule 13D, to the best of the Filing 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

- A. Second Amended and Restated Investors' Rights Agreement by and among the Issuer and each of the investors listed on Schedule A thereto and each of the stockholders listed on Schedule B thereto, dated as of November 1, 2011 (incorporated by reference to Exhibit 4.2 to the Issuer's Registration Statement on Form S-1 (SEC File No. 333-177677), filed with the SEC on November 3, 2011).
- B. Form of Letter Agreement
- C. Agreement regarding filing of joint Schedule 13D.

SCHEDULE 13D

CUSIP No. **92337C104**

Page 19 of 29 Pages

Signatures

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: February 9, 2012

MPM BioVENTURES V GP LLC

By: MPM BioVentures V LLC,

its Managing Member

By: /s/ Luke B. Evnin

Name: Luke B. Evnin

Title: Member

MPM BioVENTURES V LLC

By: /s/ Luke B. Evnin

Name: Luke B. Evnin

Title: Member

MPM BioVENTURES V, L.P.

By: MPM BioVentures V GP LLC, its General Partner

By: MPM BioVentures V LLC, its Managing Member

By: /s/ Luke B. Evnin

Name: Luke B. Evnin

Title: Member

MPM ASSET MANAGEMENT INVESTORS BV5 LLC

By: MPM BioVentures V LLC

Its: Manager

By: /s/ Luke B. Evnin

Name: Luke B. Evnin

Title: Member

By: /s/ Ansbert Gadicke

Name: Ansbert Gadicke

By: /s/ Luke B. Evinin
Name: Luke Evinin

SCHEDULE 13D

CUSIP No. **92337C104**

Page 20 of 29 Pages

By: /s/ Steven St. Peter
Name: Steven St. Peter

By: /s/ Todd Foley
Name: Todd Foley

By: /s/ James Paul Scopa
Name: James Paul Scopa

By: /s/ Vaughn M. Kailian
Name: Vaughn M. Kailian

By: /s/ John Vander Vort
Name: John Vander Vort

SCHEDULE 13D

CUSIP No. **92337C104**

Page 21 of 29 Pages

Schedule I

General Partners/Members

Ansbert Gadicke

c/o MPM Asset Management

The John Hancock Tower

200 Clarendon Street, 54th Floor

Boston, MA 02116

Principal Occupation: Member of the managing member of the general partner of MPM BioVentures V, L.P. and member of the manager of MPM Asset Management Investors BV5 LLC.

Citizenship: USA

Luke Evnin

c/o MPM Asset Management

The John Hancock Tower

200 Clarendon Street, 54th Floor

Boston, MA 02116

Principal Occupation: Member of the managing member of the general partner of MPM BioVentures V, L.P. and member of the manager of MPM Asset Management Investors BV5 LLC.

Citizenship: USA

Steven St. Peter

c/o MPM Asset Management

The John Hancock Tower

200 Clarendon Street, 54th Floor

Boston, MA 02116

Principal Occupation: Member of the managing member of the general partner of MPM BioVentures V, L.P. and member of the manager of MPM Asset Management Investors BV5 LLC.

Citizenship: USA

Todd Foley

Edgar Filing: Verastem, Inc. - Form SC 13D

c/o MPM Asset Management

The John Hancock Tower

200 Clarendon Street, 54th Floor

Boston, MA 02116

Principal Occupation: Member of the managing member of the general partner of MPM BioVentures V, L.P. and member of the manager of MPM Asset Management Investors BV5 LLC.

Citizenship: USA

SCHEDULE 13D

CUSIP No. **92337C104**
James Paul Scopu

Page 22 of 29 Pages

c/o MPM Asset Management
601 Gateway Blvd. Suite 350
S. San Francisco, CA 94080

Principal Occupation: Member of the managing member of the general partner of MPM BioVentures V, L.P. and member of the manager of MPM Asset Management Investors BV5 LLC.

Citizenship: USA

Vaughn M. Kailian

c/o MPM Asset Management

The John Hancock Tower
200 Clarendon Street, 54th Floor
Boston, MA 02116

Principal Occupation: Member of the managing member of the general partner of MPM BioVentures V, L.P. and member of the manager of MPM Asset Management Investors BV5 LLC.

Citizenship: USA

John Vander Vort

c/o MPM Asset Management

The John Hancock Tower
200 Clarendon Street, 54th Floor
Boston, MA 02116

Principal Occupation: Member of the managing member of the general partner of MPM BioVentures V, L.P. and member of the manager of MPM Asset Management Investors BV5 LLC.

Citizenship: USA

SCHEDULE 13D

CUSIP No. **92337C104**

Page 23 of 29 Pages

Exhibit Index

- A. Second Amended and Restated Investors' Rights Agreement by and among the Issuer and each of the investors listed on Schedule A thereto and each of the stockholders listed on Schedule B thereto, dated as of November 1, 2011 (incorporated by reference to Exhibit 4.2 to the Issuer's Registration Statement on Form S-1 (SEC File No. 333-177677), filed with the SEC on November 3, 2011).

- B. Form of Lock-up Agreement

- C. Agreement regarding filing of joint Schedule 13D.