



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

SCHEDULE 13G

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

XCYTE THERAPIES, INC.

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(Name of Issuer)

Common Stock

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(Title of Class of Securities)

98389F 10 1

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(CUSIP Number)

December 31, 2004

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(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1 (b)
- Rule 13d-1 (c)
- Rule 13d-1 (d)

\*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 the disclosures provided in a prior cover page.

The information required in 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 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).

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CUSIP No. 98389F 10 1

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1. Name of Reporting Person: MPM BioVentures II, L.P. I.R.S. Identification Nos. of above persons (entities only):

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2. Check the Appropriate Box if a Member of a Group:

(a)

(b)

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3. SEC Use Only:

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4. Citizenship or Place of Organization:  
Delaware

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5. Sole Voting Power:  
87,744

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Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6. Shared Voting Power:  
0

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7. Sole Dispositive Power:  
87,744

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8. Shared Dispositive Power:  
0

---

9. Aggregate Amount Beneficially Owned by Each Reporting Person:  
87,744

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10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares:

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11. Percent of Class Represented by Amount in Row (9):  
0.5%

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12. Type of Reporting Person:  
PN

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CUSIP No. 98389F 10 1

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1. Name of Reporting Person: MPM BioVentures II-QP, L.P. I.R.S. Identification Nos. of above persons (entities only):

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2. Check the Appropriate Box if a Member of a Group:

(a)

(b)

---

3. SEC Use Only:

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4. Citizenship or Place of Organization:  
Delaware

---

5. Sole Voting Power:  
795,030

---

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6. Shared Voting Power:  
0

---

7. Sole Dispositive Power:  
795,030

---

8. Shared Dispositive Power:  
0

---

9. Aggregate Amount Beneficially Owned by Each Reporting Person:  
795,030

---

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares:

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11. Percent of Class Represented by Amount in Row (9):  
4.8%

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12. Type of Reporting Person:  
PN

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CUSIP No. 98389F 10 1

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1. Name of Reporting Person: MPM BioVentures GmbH & Co. Parallel-Beteiligungs KG  
I.R.S. Identification Nos. of above persons (entities only):

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2. Check the Appropriate Box if a Member of a Group:  
(a)   
(b)

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3. SEC Use Only:

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4. Citizenship or Place of Organization:  
Germany

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5. Sole Voting Power:  
279,889

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Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6. Shared Voting Power:  
0

---

7. Sole Dispositive Power:  
279,889

---

8. Shared Dispositive Power:  
0

---

9. Aggregate Amount Beneficially Owned by Each Reporting Person:  
279,889

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10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares:

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11. Percent of Class Represented by Amount in Row (9):  
1.7%

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12. Type of Reporting Person:  
PN

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CUSIP No. 98389F 10 1

1. Name of Reporting Person: MPM Asset Management Investors 2000B, LLC  
I.R.S. Identification Nos. of above persons (entities only):

2. Check the Appropriate Box if a Member of a Group:  
(a)   
(b)

3. SEC Use Only:

4. Citizenship or Place of Organization:  
Delaware

5. Sole Voting Power:  
18,302

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6. Shared Voting Power:  
0

7. Sole Dispositive Power:  
18,302

8. Shared Dispositive Power:  
0

9. Aggregate Amount Beneficially Owned by Each Reporting Person:  
18,302

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares:

11. Percent of Class Represented by Amount in Row (9):  
0.1%

12. Type of Reporting Person:  
OO

CUSIP No. 98389F 10 1

1. Name of Reporting Person: I.R.S. Identification Nos. of above persons (entities only):  
 Ansbert Gadicke

2. Check the Appropriate Box if a Member of a Group:  
 (a)   
 (b)

3. SEC Use Only:

4. Citizenship or Place of Organization:  
 United States

5. Sole Voting Power:  
 0

Number of  
 Shares  
 Beneficially  
 Owned by  
 Each  
 Reporting  
 Person With

6. Shared Voting Power:  
 1,180,965\*

7. Sole Dispositive Power:  
 0

8. Shared Dispositive Power:  
 1,180,965\*

9. Aggregate Amount Beneficially Owned by Each Reporting Person:  
 1,180,965\*

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares:  
 0

11. Percent of Class Represented by Amount in Row (9):  
 7.1%

12. Type of Reporting Person:  
 IN

\* The shares are held as follows: 87,744 shares by MPM BioVentures II, L.P. ("BV II"), 795,030 shares by MPM BioVentures II-QP, L.P. ("BV QP"), 279,889 shares by MPM BioVentures GmbH & Co. Parallel Beteiligungs KG ("BV KG") and 18,302 shares MPM Asset Management Investors 2000B LLC ("AM LLC"). MPM Asset Management II LP ("AM II LP") and MPM Asset Management II LLC ("AM II LLC") are the direct and indirect general partners of BV II, BV QP and BV KG. The Reporting Person is a member of AM II LLC and AM LLC.

CUSIP No. 98389F 10 1

1. Name of Reporting Person: Luke Evnin  
I.R.S. Identification Nos. of above persons (entities only):

2. Check the Appropriate Box if a Member of a Group:  
(a)   
(b)

3. SEC Use Only:

4. Citizenship or Place of Organization:  
United States

5. Sole Voting Power:  
0

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6. Shared Voting Power:  
1,180,965\*

7. Sole Dispositive Power:  
0

8. Shared Dispositive Power:  
1,180,965\*

9. Aggregate Amount Beneficially Owned by Each Reporting Person:  
1,180,965\*

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares:

11. Percent of Class Represented by Amount in Row (9):  
7.1%

12. Type of Reporting Person:  
IN

\* The shares are held as follows: 87,744 shares by MPM BioVentures II, L.P. ("BV II"), 795,030 shares by MPM BioVentures II-QP, L.P. ("BV QP"), 279,889 shares by MPM BioVentures GmbH & Co. Parallel Beteiligungs KG ("BV KG") and 18,302 shares MPM Asset Management Investors 2000B LLC ("AM LLC"). MPM Asset Management II LP ("AM II LP") and MPM Asset Management II LLC ("AM II LLC") are the direct and indirect general partners of BV II, BV QP and BV KG. The Reporting Person is a member of AM II LLC and AM LLC.

**Item 1.**

- (a) Name of Issuer  
Xcyte Therapies, Inc.
- (b) Address of Issuer's Principal Executive Offices  
1124 Columbia Street, Suite 130  
Seattle, WA 98104

**Item 2.**

- (a) Name of Person Filing  
MPM BioVentures II, LP  
MPM BioVentures II-QP, L.P.  
MPM BioVentures GmbH & Co Parallel-Beteiligungs KG  
MPM Asset Management Investors 2000B, LLC  
Ansbert Gadicke  
Luke Evnin
- (b) Address of Principal Business Office or, if none, Residence  
c/o MPM Capital L.P.  
111 Huntington Avenue, 31<sup>st</sup> floor  
Boston, MA 02199
- (c) Citizenship  
All entities were organized in Delaware, except MPM BioVentures GmbH & Co Parallel-Beteiligungs KG which was organized in Germany. All individuals are United States citizens.
- (d) Title of Class of Securities  
Common Stock
- (e) CUSIP Number  
98389F 10 1

**Item 3. If this statement is filed pursuant to §§240.13d-1(b), or 240.13d-2(b) or (c), check whether the person filing is a:**  
Not applicable

**Item 4. Ownership**

- (a) Amount Beneficially Owned:

MPM BioVentures II, LP	87,744
MPM BioVentures II-QP, L.P.	795,030
MPM BioVentures GmbH & Co Parallel-Beteiligungs KG	279,889
MPM Asset Management Investors 2000B, LLC	18,302
Ansbert Gadicke	1,180,965*
Luke Evnin	1,180,965*

Percent of Class:

MPM BioVentures II, LP	0.5%
MPM BioVentures II-QP, L.P.	4.8%
MPM BioVentures GmbH & Co Parallel-Beteiligungs KG	1.7%
MPM Asset Management Investors 2000B, LLC	0.1%
Ansbert Gadicke	7.1%
Luke Evnin	7.1%

(b) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote

MPM BioVentures II, LP	87,744
MPM BioVentures II-QP, L.P.	795,030
MPM BioVentures GmbH & Co Parallel-Beteiligungs KG	279,889
MPM Asset Management Investors 2000B, LLC	18,302
Ansbert Gadicke	0
Luke Evnin	0

(ii) Shared power to vote or to direct the vote

MPM BioVentures II, LP	0
MPM BioVentures II-QP, L.P.	0
MPM BioVentures GmbH & Co Parallel-Beteiligungs KG	0
MPM Asset Management Investors 2000B, LLC	0
Ansbert Gadicke	1,180,965*
Luke Evnin	1,180,965*

(iii) Sole power to dispose or to direct the disposition of

MPM BioVentures II, LP	87,744
MPM BioVentures II-QP, L.P.	795,030
MPM BioVentures GmbH & Co Parallel-Beteiligungs KG	279,889
MPM Asset Management Investors 2000B, LLC	18,302
Ansbert Gadicke	0
Luke Evnin	0

(iv) Shared power to dispose or to direct the disposition of

MPM BioVentures II, LP	0
MPM BioVentures II-QP, L.P.	0
MPM BioVentures GmbH & Co Parallel-Beteiligungs KG	0
MPM Asset Management Investors 2000B, LLC	0
Ansbert Gadicke	1,180,965*
Luke Evnin	1,180,965*

\* The shares are held as follows: 87,744 shares by MPM BioVentures II, L.P. ("BV II"), 795,030 shares by MPM BioVentures II-QP, L.P. ("BV QP"), 279,889 shares by MPM BioVentures GmbH & Co. Parallel Beteiligungs KG ("BV KG") and 18,302 shares MPM Asset Management Investors 2000B LLC ("AM LLC"). MPM Asset Management II LP ("AM II LP") and MPM Asset Management II LLC ("AM II LLC") are the direct and indirect general partners of BV II, BV QP and BV KG. The Reporting Person is a member of AM II LLC and AM LLC.

**Item 5. Ownership of Five Percent or Less of a Class**

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following o.

**Item 6. Ownership of More than Five Percent on Behalf of Another Person**

Not Applicable

**Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.**

Not Applicable

**Item 8. Identification and Classification of Members of the Group**

Not Applicable

**Item 9. Notice of Dissolution of a Group**

Not Applicable

**Item 10. Certification**

Not Applicable

**SIGNATURE**

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.

Dated: February 9, 2005

MPM BIOVENTURES II, L.P.

By: MPM Asset Management II, L.P.,  
its General Partner

By: MPM Asset Management II LLC,  
its General Partner

By:     Luke B. Evinin      
Name: Luke B. Evinin  
Title: Manager

MPM CAPITAL GMBH. & CO. PARALLEL-  
BETEILIGUNGS KG

By: MPM Asset Management II LP, in its  
capacity as the  
Special Limited Partner

By: MPM Asset Management II LLC, its  
General Partner

By:     Luke B. Evinin      
Name: Luke B. Evinin  
Title: Manager

By:     /s/ Ansbert Gadicke      
Name: Ansbert Gadicke

MPM BIOVENTURES II-QP, L.P.

By: MPM Asset Management II, L.P.,  
its General Partner

By: MPM Asset Management II LLC,  
its General Partner

By:     Luke B. Evinin      
Name: Luke B. Evinin  
Title: Manager

MPM ASSET MANAGEMENT INVESTORS  
2000B LLC

By:     Luke B. Evinin      
Name: Luke B. Evinin  
Title: Manager

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

