

BB BIOVENTURES L P
Form SC 13G/A
February 12, 2007

OMB APPROVAL
OMB Number: 3235-0145
Expires: February 28, 2009
Estimated average burden
hours per response...10.4

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

SCHEDULE 13G

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

VIACELL, INC.
(Name of Issuer)
Common Stock
(Title of Class of Securities)
92554J105
(CUSIP Number)
December 31, 2006
(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 (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).

CUSIP No. 92554J105

NAMES OF REPORTING PERSONS:

1

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):

BB BioVentures L.P.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):

2

(a)

(b)

SEC USE ONLY:

3

CITIZENSHIP OR PLACE OF ORGANIZATION:

4

Delaware

SOLE VOTING POWER:

5

NUMBER OF 5,012,274(1)

SHARED VOTING POWER:

SHARES BENEFICIALLY OWNED BY 6

0

SOLE DISPOSITIVE POWER:

EACH REPORTING PERSON 7

5,012,274(1)

SHARED DISPOSITIVE POWER:

WITH: 8

0

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

9

5,012,274(1)

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):

12.90%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

PN

(1) Includes 433,333 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2006.

CUSIP No. 92554J105

1 NAMES OF REPORTING PERSONS:

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):

MPM BioVentures Parallel Fund, L.P.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):

(a)

(b)

3 SEC USE ONLY:

4 CITIZENSHIP OR PLACE OF ORGANIZATION:

Delaware

5 SOLE VOTING POWER:

NUMBER OF 335,628

6 SHARED VOTING POWER:

SHARES BENEFICIALLY OWNED BY 0

7 SOLE DISPOSITIVE POWER:

EACH REPORTING PERSON 335,628

8 SHARED DISPOSITIVE POWER:

0

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

335,628

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):

0.87%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

PN

CUSIP No. 92554J105

NAMES OF REPORTING PERSONS:

1

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):

MPM Asset Management Investors 2000A LLC

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):

2

(a)

(b)

SEC USE ONLY:

3

CITIZENSHIP OR PLACE OF ORGANIZATION:

4

Delaware

SOLE VOTING POWER:

5

NUMBER OF 25,283

SHARED VOTING POWER:

SHARES BENEFICIALLY OWNED BY 6 0

SOLE DISPOSITIVE POWER:

EACH REPORTING PERSON 7 25,283

SHARED DISPOSITIVE POWER:

WITH: 8 0

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

9

25,283

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):

0.07%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

OO

CUSIP No. 92554J105

NAMES OF REPORTING PERSONS:

1

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):

MPM BioVentures II-QP, L.P.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):

2

(a)

(b)

SEC USE ONLY:

3

CITIZENSHIP OR PLACE OF ORGANIZATION:

4

Delaware

SOLE VOTING POWER:

5

NUMBER OF 130,880

SHARED VOTING POWER:

SHARES BENEFICIALLY OWNED BY 6 0

SOLE DISPOSITIVE POWER:

EACH REPORTING PERSON 7 130,880

SHARED DISPOSITIVE POWER:

WITH: 8 0

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

9

130,880

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):

0.34%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

PN

CUSIP No. 92554J105

NAMES OF REPORTING PERSONS:

1

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):

MPM BioVentures II, L.P.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):

2

(a)

(b)

SEC USE ONLY:

3

CITIZENSHIP OR PLACE OF ORGANIZATION:

4

Delaware

SOLE VOTING POWER:

5

NUMBER OF 14,444

SHARED VOTING POWER:

SHARES BENEFICIALLY OWNED BY 6 0

SOLE DISPOSITIVE POWER:

EACH REPORTING PERSON 7 14,444

SHARED DISPOSITIVE POWER:

WITH: 8 0

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

9

14,444

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):

0.04%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

PN

CUSIP No. 92554J105

NAMES OF REPORTING PERSONS:

1

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):

MPM BioVentures GmbH & Co. Parallel-Beteiligungs KG

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):

2

(a)

(b)

SEC USE ONLY:

3

CITIZENSHIP OR PLACE OF ORGANIZATION:

4

Germany

SOLE VOTING POWER:

5

NUMBER OF 46,089

SHARED VOTING POWER:

SHARES BENEFICIALLY OWNED BY 6 0

SOLE DISPOSITIVE POWER:

EACH REPORTING PERSON 7 46,089

SHARED DISPOSITIVE POWER:

WITH: 8 0

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

9

46,089

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):

0.12%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

PN

CUSIP No. 92554J105

NAMES OF REPORTING PERSONS:

1

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):

MPM Asset Management Investors 2001 LLC

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):

2

(a)

(b)

SEC USE ONLY:

3

CITIZENSHIP OR PLACE OF ORGANIZATION:

4

Delaware

SOLE VOTING POWER:

5

NUMBER OF 2,715

SHARED VOTING POWER:

SHARES BENEFICIALLY OWNED BY 6 0

SOLE DISPOSITIVE POWER:

EACH REPORTING PERSON 7 2,715

SHARED DISPOSITIVE POWER:

WITH: 8 0

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

9

2,715

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):

0.01%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

OO

CUSIP No. 92554J105

1 NAMES OF REPORTING PERSONS:

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):

MPM Founders LLC

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):

(a)

(b)

3 SEC USE ONLY:

4 CITIZENSHIP OR PLACE OF ORGANIZATION:

Delaware

5 SOLE VOTING POWER:

NUMBER OF 41,146

6 SHARED VOTING POWER:

SHARES BENEFICIALLY OWNED BY 0

7 SOLE DISPOSITIVE POWER:

EACH REPORTING PERSON 41,146

8 SHARED DISPOSITIVE POWER:

WITH: 0

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

41,146

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):

0.11%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

OO

CUSIP No. 92554J105

NAMES OF REPORTING PERSONS:

1

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):

Ansbert Gadicke

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):

2

(a)

(b)

SEC USE ONLY:

3

CITIZENSHIP OR PLACE OF ORGANIZATION:

4

Delaware

SOLE VOTING POWER:

5

NUMBER OF 20,000(1)

SHARED VOTING POWER:

SHARES BENEFICIALLY OWNED BY 6

5,608,459(2)

SOLE DISPOSITIVE POWER:

EACH REPORTING PERSON 7

20,000(1)

SHARED DISPOSITIVE POWER:

WITH: 8

5,608,459(2)

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

9

5,628,459(1)(2)

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):

14.48%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

IN

(1) Includes 20,000 shares issuable upon exercise of options within 60 days of December 31, 2006.

(2) The shares are held as follows: 5,012,274 by BB BioVentures, L.P. (BB BioVentures), 335,628 by MPM BioVentures Parallel Fund, L.P. (MPM Parallel), 25,283 by MPM Asset Management Investors 2000A LLC (MPM Asset), 130,880 by MPM BioVentures II-QP, L.P. (BV QP), 14,444 by MPM BioVentures II, L.P. (BV II), 46,089 by MPM BioVentures GmbH & Co. Parallel-Beteiligungs KG (BV KG), 2,715 by MPM Asset Management Investors 2001 LLC (Asset 2001) and 41,146 shares held by MPM Founders LLC. Also includes 433,333 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2006 held by BB BioVentures. BB BioVentures is under common control with MPM Parallel and MPM Asset. BAB BioVentures L.P. (BAB BV), BAB BioVentures NV and MPM BioVentures I LLC (BioVentures LLC) are the direct and indirect general partners of BB BioVentures. MPM BioVentures I L.P. (BioVentures LP) and BioVentures LLC are the direct and indirect general partners of MPM Parallel. The Reporting person is a manager of BioVentures LLC and MPM Asset. MPM Asset Management II, L.P. (AM II GP) and MPM Asset Management II LLC (AM II LLC) are the direct and indirect general partners of BV QP, BV II and BV KG. The Reporting Person is a member of Asset 2001, AM II LLC and MPM Founders LLC.

CUSIP No. 92554J105

NAMES OF REPORTING PERSONS:

1

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):

Luke Evnin

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):

2

(a)

(b)

SEC USE ONLY:

3

CITIZENSHIP OR PLACE OF ORGANIZATION:

4

Delaware

SOLE VOTING POWER:

5

NUMBER OF 0

SHARED VOTING POWER:

SHARES BENEFICIALLY OWNED BY 6

5,608,459(1)

SOLE DISPOSITIVE POWER:

EACH REPORTING PERSON 7

0

SHARED DISPOSITIVE POWER:

WITH: 8

5,608,459(1)

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

9

5,608,459(1)

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):

14.43%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

IN

(1) The shares are held as follows: 5,012,274 by BB BioVentures, L.P. (BB BioVentures), 335,628 by MPM BioVentures Parallel Fund, L.P. (MPM Parallel), 25,283 by MPM Asset Management Investors 2000A LLC (MPM Asset), 130,880 by MPM BioVentures II-QP, L.P. (BV QP), 14,444 by MPM BioVentures II, L.P. (BV II), 46,089 by MPM BioVentures GmbH & Co. Parallel-Beteiligungs KG (BV KG), 2,715 by MPM Asset Management Investors 2001 LLC (Asset 2001) and 41,146 shares held by MPM Founders LLC. Also includes 433,333 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2006 held by BB BioVentures. BB BioVentures is under common control with MPM Parallel and MPM Asset. BAB BioVentures L.P. (BAB BV), BAB BioVentures NV and MPM BioVentures I LLC (BioVentures LLC) are the direct and indirect general partners of BB BioVe ntures. MPM BioVentures I L.P. (BioVentures LP) and BioVentures LLC are the direct and indirect general partners of MPM Parallel. The Reporting person is a manager of BioVentures LLC and MPM Asset. MPM Asset Management II, L.P. (AM II GP) and MPM Asset Management II LLC (AM II LLC) are the direct and indirect general partners of BV QP, BV II and BV KG. The Reporting Person is a member of Asset 2001, AM II LLC and MPM Founders LLC.

Item 1.

- (a) Name of Issuer
Viacell, Inc.
- (b) Address of Issuer's Principal Executive Offices
245 First Street
Cambridge, MA 02142

Item 2.

- (a) Name of Person Filing
BB BioVentures, LP
MPM BioVentures Parallel Fund, LP
MPM Asset Management Investors 2000A LLC
MPM BioVentures II-QP, L.P.
MPM BioVentures II, L.P.
MPM Asset Management Investors 2001 LLC
MPM Founders LLC
MPM BioVentures GmbH & Co. Parallel-Beteiligungs KG
Ansbert Gadicke
Luke Evnin
- (b) Address of Principal Business Office or, if none, Residence
c/o MPM Capital L.P.
The John Hancock Tower
200 Clarendon Street, 54th Floor
Boston, MA 02116
- (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
92554J105

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:

BB BioVentures, LP	5,012,274(1)
MPM BioVentures Parallel Fund, LP	335,628
MPM Asset Management Investors 2000A LLC	25,283
MPM BioVentures II-QP, L.P	130,880
MPM BioVentures II, L.P.	14,444
MPM Asset Management Investors 2001 LLC	2,715
MPM BioVentures GmbH & Co. Parallel-Beteiligungs KG	46,089
MPM Founders LLC	41,146
Ansbert Gadicke	5,628,459(2)(3)
Luke Evnin	5,608,459(2)

(b) Percent of Class:

BB BioVentures, LP	12.90%
MPM BioVentures Parallel Fund, LP	0.87%
MPM Asset Management Investors 2000A LLC	0.07%
MPM BioVentures II-QP, L.P	0.34%
MPM BioVentures II, L.P.	0.04%
MPM Asset Management Investors 2001 LLC	0.01%
MPM BioVentures GmbH & Co. Parallel-Beteiligungs KG	0.12%
MPM Founders LLC	0.11%
Ansbert Gadicke	14.48%
Luke Evnin	14.43%

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

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

BB BioVentures, LP	5,012,274(1)
MPM BioVentures Parallel Fund, LP	335,628
MPM Asset Management Investors 2000A LLC	25,283
MPM BioVentures II-QP, L.P	130,880
MPM BioVentures II, L.P.	14,444
MPM Asset Management Investors 2001 LLC	2,715
MPM BioVentures GmbH & Co. Parallel-Beteiligungs KG	46,089
MPM Founders LLC	41,146
Ansbert Gadicke	20,000(3)
Luke Evnin	0

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

BB BioVentures, LP	0
MPM BioVentures Parallel Fund, LP	0
MPM Asset Management Investors 1998 LLC	0
MPM BioVentures II-QP, L.P	0
MPM BioVentures II, L.P.	0
MPM Asset Management Investors 2001 LLC	0
MPM BioVentures GmbH & Co. Parallel-Beteiligungs KG	0
MPM Founders LLC	0
Ansbert Gadicke	5,608,459(2)
Luke Evnin	5,608,459(2)

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

BB BioVentures, LP	5,012,274(1)
MPM BioVentures Parallel Fund, LP	335,628
MPM Asset Management Investors 2000A LLC	25,283
MPM BioVentures II-QP, L.P	130,880
MPM BioVentures II, L.P.	14,444
MPM Asset Management Investors 2001 LLC	2,715
MPM BioVentures GmbH & Co. Parallel-Beteiligungs KG	46,089
MPM Founders LLC	41,146
Ansbert Gadicke	20,000(3)
Luke Evnin	0

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

BB BioVentures, LP	0
MPM BioVentures Parallel Fund, LP	0
MPM Asset Management Investors 2000A LLC	0
MPM BioVentures II-QP, L.P.	0
MPM BioVentures II, L.P.	0
MPM Asset Management Investors 2001 LLC	0
MPM BioVentures GmbH & Co. Parallel-Beteiligungs KG	0
MPM Founders LLC	0
Ansbert Gadicke	5,608,459(2)
Luke Evnin	5,608,459(2)

(1) Includes 433,333 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2006.

(2) The shares are held as follows: 5,012,274 by BB BioVentures, L.P. (BB BioVentures), 335,628 by MPM

BioVentures Parallel Fund, L.P. (MPM Parallel), 25,283 by MPM Asset Management Investors 2000A LLC (MPM Asset), 130,880 by MPM BioVentures II-QP, L.P. (BV QP), 14,444 by MPM BioVentures II, L.P. (BV II), 46,089 by MPM BioVentures GmbH & Co. Parallel-Beteiligungs KG (BV KG), 2,715 by MPM Asset Management Investors 2001 LLC (Asset 2001) and 41,146 shares held by MPM Founders LLC. Also includes 433,333 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2006 held by BB BioVentures. BB BioVentures is under common control with MPM Parallel and MPM Asset. BAB BioVentures L.P. (BAB BV), BAB BioVentures NV and MPM BioVentures I LLC (BioVentures LLC) are the direct and indirect general partners of BB BioVentures. MPM BioVentures I L.P. (BioVentures LP) and BioVentures LLC are the direct and indirect general partners of MPM Parallel. The

Reporting person is a manager of BioVentures LLC and MPM Asset Management II, L.P. (AM II GP) and MPM Asset Management II LLC (AM II LLC) are the direct and indirect general partners of BV QP, BV II and BV KG. The Reporting Person is a member of Asset 2001, AM II LLC and MPM Founders LLC.

- (3) Includes 20,000 shares issuable upon exercise of options within 60 days of December 31, 2006.

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.

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, 2007

BB BIOVENTURES L.P.

By: BAB BioVentures L.P.,
its General Partner

By: BAB BioVentures N.V.,
its General Partner

By: /s/ Ansbert Gadicke

Name: Ansbert Gadicke
Title: Manager

MPM BIOVENTURES PARALLEL FUND, L.P.

By: MPM BioVentures I LP,
its General Partner

By: MPM BioVentures I LLC,
its General Partner

By: /s/ Luke Evnin

Name: Luke B. Evnin
Title: Manager

MPM ASSET MANAGEMENT
INVESTORS
2000A LLC

By: /s/ Luke Evnin

Name: Luke B. Evnin
Title: Manager

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: /s/ Luke Evnin

Name: Luke B. Evnin
Title: Manager

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: /s/ Luke Evnin

MPM ASSET MANAGEMENT INVESTORS 2001 LLC

By: /s/ Luke Evnin

Name: Luke B. Evnin
Title: Manager

Name: Luke B. Evinin

Title: Manager

MPM BIOVENTURES GMBH & CO.
PARALLEL-BETEILIGUNGS KG

MPM FOUNDERS LLC

By: /s/ Luke Evin

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

Name: Luke B. Evin
Title: Manager

By: MPM Asset Management II LLC, its
General Partner

By: /s/ Luke Evin

Name: Luke B. Evin
Title: Manager

By: /s/ Ansbert Gadicke

By: /s/ Luke Evin

Name: Ansbert Gadicke

Name: Luke B. Evin
Page 17 of 19

EXHIBIT A

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the undersigned agree to the joint filing on behalf of each of them of a statement on Schedule 13G (including amendments thereto) with respect to the Common Stock of Viacell, Inc. and further agree that this agreement be included as an exhibit to such filing. Each party to the agreement expressly authorizes each other party to file on its behalf any and all amendments to such statement. Each party to this agreement agrees that this joint filing agreement may be signed in counterparts.

In evidence whereof, the undersigned have caused this Agreement to be executed on their behalf this 9th day of February, 2007.

BB BIOVENTURES L.P.

By: BAB BioVentures L.P.,
its General Partner

By: BAB BioVentures N.V.,
its General Partner

By: /s/ Ansbert Gadicke

Name: Ansbert Gadicke
Title: Manager

MPM BIOVENTURES PARALLEL FUND, L.P.

By: MPM BioVentures I LP,
its General Partner

By: MPM BioVentures I LLC,
its General Partner

By: /s/ Luke Evnin

Name: Luke B. Evnin
Title: Manager

MPM ASSET MANAGEMENT
INVESTORS
2000A LLC

By: /s/ Luke Evnin

Name: Luke B. Evnin
Title: Manager

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: /s/ Luke Evnin

Name: Luke B. Evnin
Title: Manager

MPM BIOVENTURES II, L.P.

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

By:

MPM ASSET MANAGEMENT INVESTORS 2001 LLC

By: /s/ Luke Evnin

Name: Luke B. Evnin
Title: Manager

MPM Asset Management II
LLC,
its General Partner

By: /s/ Luke Evin

Name: Luke B. Evin
Title: Manager

Page 18 of 19

MPM BIOVENTURES GMBH & CO.
PARALLEL-BETEILIGUNGS KG

MPM FOUNDERS LLC

By: /s/ Luke Evnin

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

Name: Luke B. Evnin
Title: Manager

By: MPM Asset Management II LLC, its
General Partner

By: /s/ Luke Evnin

Name: Luke B. Evnin
Title: Manager

By: /s/ Ansbert Gadicke

By: /s/ Luke Evnin

Name: Ansbert Gadicke

Name: Luke B. Evnin
Page 19 of 19