

Radius Health, Inc.
Form SC 13D/A
October 03, 2016

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 13D
UNDER THE SECURITIES EXCHANGE ACT OF 1934
(Amendment No. 3)*

RADIUS HEALTH, INC.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

750469 207

(CUSIP Number)

ANSBERT GADICKE

MPM ASSET MANAGEMENT

450 KENDALL STREET

CAMBRIDGE, MA 02142

TELEPHONE: (617) 425-9200

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

September 27, 2016

(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 §240.13d-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*).

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

MPM BioVentures III-QP, L.P.

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Delaware

Number of 7. Sole Voting Power

Shares

Beneficially 2,103,857 (2)

8. Shared Voting Power

Owned by

Each

0

Reporting 9. Sole Dispositive Power

Person

With 2,103,857 (2)
10. Shared Dispositive Power

0

11. Aggregate Amount Beneficially Owned by Each Reporting Person

2,103,857 (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

4.9% (3)

14. Type of Reporting Person (see instructions)

PN

- (1) This Schedule 13D amendment (the 13D/A) is filed by MPM BioVentures III-QP, L.P. (BV III QP), MPM BioVentures III, L.P. (BV III), MPM BioVentures III Parallel Fund, L.P. (BV III PF), MPM BioVentures III GmbH & Co. Beteiligungs KG (BV III KG), MPM Asset Management Investors 2003 BVIII LLC (AM LLC), MPM Bio IV NVS Strategic Fund, L.P. (MPM NVS), MPM BioVentures III GP, L.P. (BV III GP), MPM BioVentures III LLC (BV III LLC), MPM BioVentures IV GP LLC (BV IV GP) and MPM BioVentures IV LLC (BV IV LLC and collectively with BV III QP, BV III, BV III PF, BV III KG, AM LLC, MPM NVS, BV III GP, BV III LLC and BV IV GP, the MPM Entities) and Luke Evnin, Ansbert Gadicke, Nicholas Galakatos, Kurt Wheeler, Nicholas Simon III, Dennis Henner, Todd Foley, Vaughn M. Kailian and James Paul Scopa (collectively, the Listed Persons). BV III GP and BV III LLC are the direct and indirect general partners of BV III QP, BV III, BV III PF and BV III KG. Luke Evnin, Ansbert Gadicke, Nicholas Galakatos, Kurt Wheeler, Nicholas Simon III and Dennis Henner are Series A members of BV III LLC and managers of AM LLC. BV IV GP and BV IV LLC are the direct and indirect general partners of MPM NVS. Luke Evnin, Ansbert Gadicke, Todd Foley, Vaughn M. Kailian and James Paul Scopa are members of BV IV LLC.
- (2) Consists of (i) 2,047,635 shares of common stock (Common Stock) of Radius Health, Inc. (the Issuer) held by the Reporting Person; and (ii) 83,222 shares of Common Stock underlying warrants held by the Reporting Person that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer s Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

MPM BioVentures III, L.P.

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Delaware

Number of 7. Sole Voting Power

Shares

Beneficially 143,266 (2)
8. Shared Voting Power

Owned by

Each

0
Reporting 9. Sole Dispositive Power

Person

With 143,266 (2)
10. Shared Dispositive Power

0

11. Aggregate Amount Beneficially Owned by Each Reporting Person

143,266 (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

0.3% (3)

14. Type of Reporting Person (see instructions)

PN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) 137,671 shares of Common Stock held by the Reporting Person; and (ii) 5,595 shares of Common Stock underlying warrants held by the Reporting Person that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

MPM Asset Management Investors 2003 BVIII LLC

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Delaware

Number of 7. Sole Voting Power

Shares

Beneficially 41,239 (2)

8. Shared Voting Power

Owned by

Each

0

Reporting 9. Sole Dispositive Power

Person

With 41,239 (2)
10. Shared Dispositive Power

0

11. Aggregate Amount Beneficially Owned by Each Reporting Person

41,239 (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

0.1% (3)

14. Type of Reporting Person (see instructions)

00

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) 39,630 shares of Common Stock held by the Reporting Person; and (ii) 1,609 shares of Common Stock underlying warrants held by the Reporting Person that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

MPM BioVentures III Parallel Fund, L.P.

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Delaware

Number of 7. Sole Voting Power

Shares

Beneficially 64,335 (2)
8. Shared Voting Power

Owned by

Each

0
Reporting 9. Sole Dispositive Power

Person

With 64,335 (2)
10. Shared Dispositive Power

0

11. Aggregate Amount Beneficially Owned by Each Reporting Person

64,335 (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

0.1% (3)

14. Type of Reporting Person (see instructions)

PN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) 61,823 shares of Common Stock held by the Reporting Person; and (ii) 2,512 shares of Common Stock underlying warrants held by the Reporting Person that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

MPM BioVentures III GmbH & Co. Beteiligungs KG

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Germany

Number of 7. Sole Voting Power

Shares

Beneficially 180,077 (2)
8. Shared Voting Power

Owned by

Each

0
Reporting 9. Sole Dispositive Power

Person

With 180,077 (2)
10. Shared Dispositive Power

0

11. Aggregate Amount Beneficially Owned by Each Reporting Person

180,077 (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

0.4% (3)

14. Type of Reporting Person (see instructions)

PN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) 173,045 shares of Common Stock held by the Reporting Person; and (ii) 7,032 shares of Common Stock underlying warrants held by the Reporting Person that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

MPM Bio IV NVS Strategic Fund, L.P.

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Bermuda

Number of 7. Sole Voting Power

Shares

Beneficially 1,506,248 (2)
8. Shared Voting Power

Owned by

Each

0
Reporting 9. Sole Dispositive Power

Person

With 1,506,248 (2)
10. Shared Dispositive Power

0

11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,506,248 (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

3.5% (3)

14. Type of Reporting Person (see instructions)

PN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) 1,427,698 shares of Common Stock held by the Reporting Person; and (ii) 78,550 shares of Common Stock underlying warrants held by the Reporting Person that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

MPM BioVentures III GP, L.P.

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Delaware

Number of 7. Sole Voting Power

Shares

Beneficially 0
8. Shared Voting Power

Owned by

Each

Reporting 2,518,535 (2)
9. Sole Dispositive Power

Person

With 0
10. Shared Dispositive Power

2,518,535 (2)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

2,518,535 (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

5.8% (3)
14. Type of Reporting Person (see instructions)

PN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) an aggregate of 2,420,174 shares of Common Stock held by BV III QP, BV III, BV III PF and BV III KG; and (ii) an aggregate of 98,361 shares of Common Stock underlying warrants held by BV III QP, BV III, BV III PF and BV III KG that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

MPM BioVentures III LLC

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Delaware

Number of 7. Sole Voting Power

Shares

Beneficially 0
8. Shared Voting Power

Owned by

Each

Reporting 2,518,535 (2)
9. Sole Dispositive Power

Person

With 0
10. Shared Dispositive Power

2,518,535 (2)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

2,518,535 (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

5.8% (3)
14. Type of Reporting Person (see instructions)

OO

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) an aggregate of 2,420,174 shares of Common Stock held by BV III QP, BV III, BV III PF and BV III KG; and (ii) an aggregate of 98,361 shares of Common Stock underlying warrants held by BV III QP, BV III, BV III PF and BV III KG that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

MPM BioVentures IV GP, L.P.

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Delaware

Number of 7. Sole Voting Power

Shares

Beneficially 0
8. Shared Voting Power

Owned by

Each

1,506,248 (2)
Reporting 9. Sole Dispositive Power

Person

With 0
10. Shared Dispositive Power

1,506,248 (2)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,506,248 (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

3.5% (3)
14. Type of Reporting Person (see instructions)

PN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) 1,427,698 shares of Common Stock held by MPM NVS; and (ii) 78,550 shares of Common Stock underlying warrants held by MPM NVS that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

MPM BioVentures IV LLC

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Delaware

Number of 7. Sole Voting Power

Shares

Beneficially 0
8. Shared Voting Power

Owned by

Each

1,506,248 (2)
Reporting 9. Sole Dispositive Power

Person

With 0
10. Shared Dispositive Power

1,506,248 (2)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,506,248 (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

3.5% (3)
14. Type of Reporting Person (see instructions)

OO

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) 1,427,698 shares of Common Stock held by MPM NVS; and (ii) 78,550 shares of Common Stock underlying warrants held by MPM NVS that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

Luke Evin

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

United States

Number of 7. Sole Voting Power

Shares

Beneficially 0
8. Shared Voting Power

Owned by

Each

Reporting 4,066,022 (2)
9. Sole Dispositive Power

Person

With 0
10. Shared Dispositive Power

4,066,022 (2)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

4,066,022 (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

9.4% (3)
14. Type of Reporting Person (see instructions)

IN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) an aggregate of 3,887,502 shares of Common Stock held by BV III QP, BV III, BV III PF, BV III KG, AM LLC and MPM NVS; and (ii) an aggregate of 178,520 shares of Common Stock underlying warrants held by BV III QP, BV III, BV III PF, BV III KG, AM LLC and MPM NVS that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

Ansbert Gadicke

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

United States

Number of 7. Sole Voting Power

Shares

Beneficially 45,000 (2)

8. Shared Voting Power

Owned by

Each

Reporting 4,066,022 (3)

9. Sole Dispositive Power

Person

With 45,000 (2)
10. Shared Dispositive Power

4,066,022 (3)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

4,111,022
12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (see instructions)

13. Percent of Class Represented by Amount in Row 11

9.5% (4)
14. Type of Reporting Person (see instructions)

IN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of shares underlying options held by the Reporting Person that are exercisable within 60 days of the date of this filing.
- (3) Consists of (i) an aggregate of 3,887,502 shares of Common Stock held by BV III QP, BV III, BV III PF, BV III KG, AM LLC and MPM NVS; and (ii) an aggregate of 178,520 shares of Common Stock underlying warrants held by BV III QP, BV III, BV III PF, BV III KG, AM LLC and MPM NVS that are exercisable within 60 days of the date of this filing.
- (4) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

Nicholas Galakatos

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

United States

Number of 7. Sole Voting Power

Shares

Beneficially 0
8. Shared Voting Power

Owned by

Each

2,559,774 (2)
Reporting 9. Sole Dispositive Power

Person

With 0
10. Shared Dispositive Power

2,559,774 (2)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

2,559,774 (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

5.9% (3)
14. Type of Reporting Person (see instructions)

IN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) an aggregate of 2,459,804 shares of Common Stock held by BV III QP, BV III, BV III PF, BV III KG and AM LLC; and (ii) an aggregate of 99,970 shares of Common Stock underlying warrants held by BV III QP, BV III, BV III PF, BV III KG and AM LLC that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

Kurt Wheeler

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

United States

Number of 7. Sole Voting Power

Shares

Beneficially 0
8. Shared Voting Power

Owned by

Each

2,559,774 (2)
Reporting 9. Sole Dispositive Power

Person

With 0
10. Shared Dispositive Power

2,559,774 (2)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

2,559,774 (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

5.9% (3)
14. Type of Reporting Person (see instructions)

IN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) an aggregate of 2,459,804 shares of Common Stock held by BV III QP, BV III, BV III PF, BV III KG and AM LLC; and (ii) an aggregate of 99,970 shares of Common Stock underlying warrants held by BV III QP, BV III, BV III PF, BV III KG and AM LLC that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

Nicholas Simon III

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

United States

Number of 7. Sole Voting Power

Shares

Beneficially 0
8. Shared Voting Power

Owned by

Each

2,559,774 (2)
Reporting 9. Sole Dispositive Power

Person

With 0
10. Shared Dispositive Power

2,559,774 (2)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

2,559,774 (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

5.9% (3)
14. Type of Reporting Person (see instructions)

IN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) an aggregate of 2,459,804 shares of Common Stock held by BV III QP, BV III, BV III PF, BV III KG and AM LLC; and (ii) an aggregate of 99,970 shares of Common Stock underlying warrants held by BV III QP, BV III, BV III PF, BV III KG and AM LLC that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

Dennis Henner

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

United States

Number of 7. Sole Voting Power

Shares

Beneficially 0
8. Shared Voting Power

Owned by

Each

2,559,774 (2)
Reporting 9. Sole Dispositive Power

Person

With 0
10. Shared Dispositive Power

2,559,774 (2)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

2,559,774 (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

5.9% (3)
14. Type of Reporting Person (see instructions)

IN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) an aggregate of 2,459,804 shares of Common Stock held by BV III QP, BV III, BV III PF, BV III KG and AM LLC; and (ii) an aggregate of 99,970 shares of Common Stock underlying warrants held by BV III QP, BV III, BV III PF, BV III KG and AM LLC that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

Todd Foley

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

United States

Number of 7. Sole Voting Power

Shares

Beneficially 0

8. Shared Voting Power

Owned by

Each

1,506,248 (2)

Reporting 9. Sole Dispositive Power

Person

With 0
10. Shared Dispositive Power

1,506,248 (2)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,506,248 (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

3.5% (3)
14. Type of Reporting Person (see instructions)

IN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) 1,427,698 shares of Common Stock held by MPM NVS; and (ii) 78,550 shares of Common Stock underlying warrants held by MPM NVS that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

Vaughn M. Kailian

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

United States

Number of 7. Sole Voting Power

Shares

Beneficially 0

8. Shared Voting Power

Owned by

Each

1,506,248 (2)

Reporting 9. Sole Dispositive Power

Person

With 0
10. Shared Dispositive Power

1,506,248 (2)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,506,248 (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

3.5% (3)
14. Type of Reporting Person (see instructions)

IN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) 1,427,698 shares of Common Stock held by MPM NVS; and (ii) 78,550 shares of Common Stock underlying warrants held by MPM NVS that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

13D/A

CUSIP No. 750469 207

1. Name of Reporting Persons(1)

James Paul Scopa

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a) (b)

3. SEC USE ONLY

4. Source of Funds (see instructions)

OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

United States

Number of 7. Sole Voting Power

Shares

Beneficially 0
8. Shared Voting Power

Owned by

Each

1,506,248 (2)
Reporting 9. Sole Dispositive Power

Person

With 0
10. Shared Dispositive Power

1,506,248 (2)
11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,506,248 (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

3.5% (3)
14. Type of Reporting Person (see instructions)

IN

- (1) This 13D/A is filed by the MPM Entities and the Listed Persons.
- (2) Consists of (i) 1,427,698 shares of Common Stock held by MPM NVS; and (ii) 78,550 shares of Common Stock underlying warrants held by MPM NVS that are exercisable within 60 days of the date of this filing.
- (3) This percentage was calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

Explanatory Note:

This Amendment No. 3 to Schedule 13D (the "13D/A") amends and supplements the Schedule 13D previously filed by the undersigned with the Securities and Exchange Commission on May 27, 2011 and amended by Amendment No. 1 filed December 27, 2011 and Amendment No. 2 filed May 7, 2013 (as amended, the "Original Schedule 13D"). This 13D/A is being filed to report the distribution in kind of shares of Common Stock of Radius Health, Inc., a Delaware corporation (the "Issuer") by certain of the Reporting Persons.

All capitalized terms not otherwise defined herein shall have the meaning ascribed to the terms in the Original Schedule 13D. The Original Schedule 13D is hereby amended and supplemented as follows and, except as expressly amended below, the Original Schedule 13D remains in full force and effect.

Item 2. Identity and Background

Item 2. Identity and Background of the Original Schedule 13D is hereby amended and restated in its entirety as follows:

(a) The persons and entities filing this statement are MPM BioVentures III-QP, L.P. ("BV III QP"), MPM BioVentures III, L.P. ("BV III"), MPM BioVentures III Parallel Fund, L.P. ("BV III PF"), MPM BioVentures III GmbH & Co. Beteiligungs KG ("BV III KG"), MPM Asset Management Investors 2003 BVIII LLC ("AM LLC"), MPM Bio IV NVS Strategic Fund, L.P. ("MPM NVS"), MPM BioVentures III GP, L.P. ("BV III GP"), MPM BioVentures III LLC ("BV III LLC"), MPM BioVentures IV GP LLC ("MPM IV GP") and MPM BioVentures IV LLC ("MPM IV LLC" and, collectively with BV III QP, BV III, BV III PF, BV III KG, AM LLC, MPM NVS, BV III GP and MPM IV GP, the "MPM Entities") and Luke Evnin, Ansbert Gadicke, Nicholas Galakatos, Kurt Wheeler, Nicholas Simon III, Dennis Henner, Todd Foley, Vaughn M. Kailian and James Paul Scopa (collectively, the "Listed Persons" and together with the MPM Entities, the "Reporting Persons" or the "Filing Persons").

(b) The address of the principal place of business for each of the MPM Entities and Ansbert Gadicke, Luke Evnin, Nicholas Galakatos, Kurt Wheeler, Nicholas Simon III, Dennis Henner, Vaughn M. Kailian and Todd Foley is 450 Kendall Street, Cambridge, MA 02142 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 MPM Entities is the venture capital investment business. Each of the Listed Persons is a general partner of various venture capital investment funds.

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

(e) During the last five years, none of the Filing Persons, to the knowledge of the MPM Entities, 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, except BV III KG, which was organized in Germany and MPM NVS, which was organized in Bermuda.

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 4. Purpose of Transaction

Item 4. Purpose of Transaction of the Original Schedule 13D is hereby amended by adding the following at the end thereof:

Effective September 27, 2016, the reporting persons distributed an aggregate of 1,943,751 shares of the Issuer's Common Stock to their respective limited partners and members on a pro rata basis for no additional consideration, as follows:

Reporting Person	Shares of Common Stock Distributed
BV III QP	1,023,819
BV III	68,835
BV III PF	30,911
BV III KG	86,522
AM LLC	19,815
MPM NVS	713,849

Item 5. Interest in Securities of the Issuer

Item 5. Interest in Securities of the Issuer is hereby amended and restated in its entirety as follows:

(a)-(b) The following information with respect to the beneficial ownership of the Common Stock by the persons filing this 13D/A is provided as of the date of this filing:

Reporting Person	Shares of Common Stock	Shares Issuable Upon Exercise of Warrants or Options to			Shared Voting Power	Sole Dispositive Power	Shared Dispositive Power	Percentage of Beneficial Ownership	Class (1)
		Purchase Common Stock	Sole Voting Power	Shared Voting Power					
BV III QP(2)	2,047,635	83,222	2,103,857	0	2,103,857	0	2,103,857	4.9%	
BV III(3)	137,671	5,595	143,266	0	143,266	0	143,266	0.3%	
BV III PF(4)	61,823	2,512	64,335	0	64,335	0	64,335	0.1%	
BV III KG(5)	173,045	7,032	180,077	0	180,077	0	180,077	0.4%	
AM LLC(6)	39,630	1,609	41,239	0	41,239	0	41,239	0.1%	
MPM NVS(7)	1,427,698	78,550	1,506,248	0	1,506,248	0	1,506,248	3.5%	
BV III GP(8)	2,420,174	98,361	0	2,518,535	0	2,518,535	2,518,535	5.8%	
BV III LLC(8)	2,420,174	98,361	0	2,518,535	0	2,518,535	2,518,535	5.8%	
BV IV GP(9)	1,427,698	78,550	0	1,506,248	0	1,506,248	1,506,248	3.5%	
BV IV LLC(9)	1,427,698	78,550	0	1,506,248	0	1,506,248	1,506,248	3.5%	
Luke Evnin(10)(11)	3,887,502	178,520	0	4,066,022	0	4,066,022	4,066,022	9.4%	
Ansbert Gadicke(10)(11)(12)	3,887,502	223,520	45,000	4,066,022	45,000	4,066,022	4,111,022	9.5%	
Nicholas Galakatos(10)	2,459,804	99,970	0	2,559,774	0	2,559,774	2,559,774	5.9%	
Kurt Wheeler(10)	2,459,804	99,970	0	2,559,774	0	2,559,774	2,559,774	5.9%	
Nicholas Simon III(10)	2,459,804	99,970	0	2,559,774	0	2,559,774	2,559,774	5.9%	
Dennis Henner(10)	2,459,804	99,970	0	2,559,774	0	2,559,774	2,559,774	5.9%	
Todd Foley(11)	1,427,698	78,550	0	1,506,248	0	1,506,248	1,506,248	3.5%	
Vaughn M. Kailian(11)	1,427,698	78,550	0	1,506,248	0	1,506,248	1,506,248	3.5%	
James Paul Scopa(11)	1,427,698	78,550	0	1,506,248	0	1,506,248	1,506,248	3.5%	

(1) These percentages were calculated based upon 43,082,740 shares of outstanding Common Stock as of August 1, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016.

(2)

- Consists of (i) 2,047,635 shares of Common Stock held by the Reporting Person; and (ii) 83,222 shares of Common Stock underlying warrants held by the Reporting Person that are exercisable within 60 days of the date of this filing.
- (3) Consists of (i) 137,671 shares of Common Stock held by the Reporting Person; and (ii) 5,595 shares of Common Stock underlying warrants held by the Reporting Person that are exercisable within 60 days of the date of this filing.
 - (4) Consists of (i) 61,823 shares of Common Stock held by the Reporting Person; and (ii) 2,512 shares of Common Stock underlying warrants held by the Reporting Person that are exercisable within 60 days of the date of this filing.
 - (5) Consists of (i) 173,045 shares of Common Stock held by the Reporting Person; and (ii) 7,032 shares of Common Stock underlying warrants held by the Reporting Person that are exercisable within 60 days of the date of this filing.
 - (6) Consists of (i) 39,630 shares of Common Stock held by the Reporting Person; and (ii) 1,609 shares of Common Stock underlying warrants held by the Reporting Person that are exercisable within 60 days of the date of this filing.
 - (7) Consists of (i) 1,427,698 shares of Common Stock held by the Reporting Person; and (ii) 78,550 shares of Common Stock underlying warrants held by the Reporting Person that are exercisable within 60 days of the date of this filing.
 - (8) BV III GP and BV III LLC are the direct and indirect general partners of BV III QP, BV III, BV III PF and BV III KG. See footnotes (2) through (5) for the securities with respect to which these Reporting Persons share voting and dispositive power.
 - (9) BV IV GP and BV IV LLC are the direct and indirect general partners of MPM NVS. See footnote (7) for the securities with respect to which these Reporting Persons share voting and dispositive power.
 - (10) These Reporting Persons are Series A Members of BV III LLC and managers of AM LLC. See footnotes (2) through (6) for the securities with respect to which these Reporting Persons share voting and dispositive power.
 - (11) These Reporting Persons are members of BV IV LLC. See footnote (7) for the securities with respect to which these Reporting Persons share voting and dispositive power.
 - (12) Includes 45,000 shares of Common Stock underlying stock options that are exercisable within 60 days of the date of this filing.

(c) Except as set forth in Item 4 above, none of the Reporting Persons nor Listed Persons has effected any transactions in the Common Stock during the past 60 days.

(d) No other person is known by the Reporting Persons to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, Common Stock beneficially owned by the Reporting Persons.

(e) Not applicable.

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.

Dated: October 3, 2016

MPM BIOVENTURES III, L.P.

By: MPM BioVentures III GP, L.P.,

its General Partner

By: MPM BioVentures III LLC,

its General Partner

By: /s/ Luke Evnin

Name: Luke Evnin

Title: Series A Member

MPM BIOVENTURES III-QP, L.P.

By: MPM BioVentures III GP, L.P.,

its General Partner

By: MPM BioVentures III LLC,

its General Partner

By: /s/ Luke Evnin

Name: Luke Evnin

Title: Series A Member

MPM BIOVENTURES III PARALLEL FUND,
L.P.

By: MPM BioVentures III GP, L.P.,

its General Partner

By: MPM BioVentures III LLC,

its General Partner

By: /s/ Luke Evnin

Name: Luke Evnin

Title: Series A Member

MPM BIOVENTURES III GMBH & CO.
BETEILIGUNGS KG

By: MPM BioVentures III GP, L.P.,

in its capacity as the Managing Limited
Partner

By: MPM BioVentures III LLC,

its General Partner

By: /s/ Luke Evnin

Name: Luke Evnin

Title: Series A Member

MPM ASSET MANAGEMENT INVESTORS
2003 BVIII LLC

By: /s/ Luke Evnin

Name: Luke Evnin

MPM BIOVENTURES III GP, L.P.

By: MPM BioVentures III LLC,

its General Partner

Title: Manager

MPM BIOVENTURES III LLC

By: /s/ Luke Evnin

Name: Luke Evnin

Title: Series A Member

MPM BIO IV NVS STRATEGIC FUND, L.P.

By: MPM BIOVENTURES IV GP LLC, its
General Partner

By: MPM BIOVENTURES IV LLC, its
Managing Member

By: /s/ Luke Evnin

Name: Luke Evnin

Title: Member

By: /s/ Luke Evnin

Name: Luke Evnin

Title: Series A Member

MPM BIOVENTURES IV GP LLC

By: MPM BIOVENTURES IV LLC, its
Managing Member

By: /s/ Luke Evnin

Name: Luke Evnin

Title: Member

MPM BIOVENTURES IV LLC

By: /s/ Luke Evnin

Name: Luke Evnin

Title: Member

/s/ Luke Evnin

Luke Evnin

/s/ Nicholas Galakatos

Nicholas Galakatos

/s/ Nicholas Simon III

Nicholas Simon III

/s/ Todd Foley

Todd Foley

/s/ James Paul Scopa

James Paul Scopa

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative (other than an executive officer or general partner of the filing person), evidence of the representative's authority to sign on behalf of such person shall be filed with the statement: provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath his signature.

**Attention: Intentional misstatements or omissions of fact
constitute Federal criminal violations (See 18 U.S.C. 1001)**

SCHEDULE I

General Partners/Members:

Luke Evnin

c/o MPM Asset Management

450 Kendall Street

Cambridge, MA 02142

Principal Occupation: Series A member of the general partner of the general partner of MPM BioVentures III-QP, L.P., MPM BioVentures III, L.P., MPM BioVentures III Parallel Fund, L.P. and MPM BioVentures III GmbH & Co. Beteiligungs KG, manager of MPM Asset Management Investors 2003 BVIII LLC and a member of the managing member of the general partner of MPM Bio IV NVS Strategic Fund

Citizenship: USA

Ansbert Gadicke

c/o MPM Asset Management

450 Kendall Street

Cambridge, MA 02142

Principal Occupation: Series A member of the general partner of the general partner of MPM BioVentures III-QP, L.P., MPM BioVentures III, L.P., MPM BioVentures III Parallel Fund, L.P. and MPM BioVentures III GmbH & Co. Beteiligungs KG, manager of MPM Asset Management Investors 2003 BVIII LLC and a member of the managing member of the general partner of MPM Bio IV NVS Strategic Fund

Citizenship: USA

Nicholas Galakatos

c/o MPM Asset Management

450 Kendall Street

Cambridge, MA 02142

Principal Occupation: Series A member of the general partner of the general partner of MPM BioVentures III-QP, L.P., MPM BioVentures III, L.P., MPM BioVentures III Parallel Fund, L.P. and MPM BioVentures III GmbH & Co. Beteiligungs KG and manager of MPM Asset Management Investors 2003 BVIII LLC

Citizenship: USA

Kurt Wheeler

c/o MPM Asset Management

450 Kendall Street

Cambridge, MA 02142

Principal Occupation: Series A member of the general partner of the general partner of MPM BioVentures III-QP, L.P., MPM BioVentures III, L.P., MPM BioVentures III Parallel Fund, L.P. and MPM BioVentures III GmbH & Co. Beteiligungs KG and manager of MPM Asset Management Investors 2003 BVIII LLC

Citizenship: USA

Nicholas Simon III

c/o MPM Asset Management

450 Kendall Street

Cambridge, MA 02142

Principal Occupation: Series A member of the general partner of the general partner of MPM BioVentures III-QP, L.P., MPM BioVentures III, L.P., MPM BioVentures III Parallel Fund, L.P. and MPM BioVentures III GmbH & Co. Beteiligungs KG and manager of MPM Asset Management Investors 2003 BVIII LLC

Citizenship: USA

Dennis Henner

c/o MPM Asset Management

450 Kendall Street

Cambridge, MA 02142

Principal Occupation: Series A member of the general partner of the general partner of MPM BioVentures III-QP, L.P., MPM BioVentures III, L.P., MPM BioVentures III Parallel Fund, L.P. and MPM BioVentures III GmbH & Co. Beteiligungs KG and manager of MPM Asset Management Investors 2003 BVIII LLC

Citizenship: USA

James Paul Scopa

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 Bio IV NVS Strategic Fund

Citizenship: USA

Todd Foley

c/o MPM Asset Management

450 Kendall Street

Cambridge, MA 02142

Principal Occupation: Member of the managing member of the general partner of MPM Bio IV NVS Strategic Fund

Citizenship: USA

Vaughn M. Kailian

c/o MPM Asset Management

450 Kendall Street

Cambridge, MA 02142

Principal Occupation: Member of the managing member of the general partner of MPM Bio IV NVS Strategic Fund

Citizenship: USA