Radius Health, Inc. Form SC 13D/A December 23, 2011

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

SCHEDULE 13D

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

Radius Health, Inc.

(Name of Issuer)

Common Stock, \$0.0001 par value

(Title of Class of Securities)

0001428522

(CUSIP Number)

Head of Investment Services

Wellcome Trust

Gibbs Building

215 Euston Road

London NW1 2BE, UK

+44 (0) 20 7611 8665

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

December 14, 2011

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. o

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §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).

1	Names of Reporting Persons. I.R.S. Identification Nos. of Above Persons (Entities Only). The Wellcome Trust Limited as Trustee of The Wellcome Trust 98-6038021				
2	Check the Appropriate Bo (a) (b)	ox if a Member of a Group (See Instructions) x o			
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) o				
6	Citizenship or Place of Organization United Kingdom				
	7	Sole Voting Power 2,868,910 shares			
Number of Shares Beneficially	8	Shared Voting Power 0 shares			
Owned by Each Reporting	9	Sole Dispositive Power 2,868,910 shares			
Person With	10	Shared Dispositive Power 0 shares			
11	Aggregate Amount Beneficially Owned by Each Reporting Person 2,868,910 shares				
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) o				
13	Percent of Class Represented by Amount in Row (11) 13.43%(1)				
14	Type of Reporting Person (See Instructions) OO				

⁽¹⁾ The Reporting Persons are party to certain agreements with the Separately Filing Group Members (as defined in this Schedule 13D), which agreements contain, among other things, certain voting agreements and limitations on the sale of their shares of Common Stock. As a result, the Reporting Persons may be deemed to be members of a group, within the meaning of Section 13(d)(3) of the Act (as defined in this Schedule 13D), comprised of the Reporting Person and the Separately Filing Group Members. Shares listed as beneficially owned by the Reporting Persons exclude shares held by any other Reporting Person or by any of the Separately Filing Group Members, in each case as to which the Reporting Persons disclaims beneficial ownership.

The percentage is calculated based upon 21,354,127 shares of outstanding Common Stock being deemed issued and outstanding, which consists of: (i) 599,247 shares of Common Stock that are issued and outstanding and (ii) an aggregate of 20,754,880 shares of Common Stock issuable upon conversion of all shares of Preferred Stock outstanding as of December 14, 2011 following completion of the Stage III Closing contemplated by the Stock Purchase Agreement (as defined below) as disclosed in the Issuer s Current Reports on Form 8-K, filed with the SEC on November 23, 2011 and December 15, 2011 and the Issuer s Prospectus dated November 10, 2011, and as disclosed to the Reporting Persons

by the Issuer separately. Because shares of Preferred Stock vote together with Common Stock on an as-converted basis, such percentage reflects the Reporting Persons voting percentage of the Issuer s outstanding capital stock. If the percentage calculation was calculated in accordance with Rule 13d-3(d)(1) promulgated under the Exchange Act, excluding shares held by any of the Separately Filing Group Members (as defined below), as to which the Reporting Persons disclaim beneficial ownership, it would result in an applicable percentage of 75.99%.

Schedule 13D (Amendment No. 1)

This Amendment No. 1 to Schedule 13D (Amendment No. 1) amends the statement on Schedule 13D relating to shares of common stock, \$0.0001 par value (the Common Stock) of Radius Health, Inc. (the Issuer), filed by the Reporting Person with the Securities and Exchange Commission on May 27, 2011 (the Original Schedule 13D).

Amendment No. 1 is filed to report (i) the Reporting Persons membership in a Group as indicated on Line 2 of the cover sheets and (ii) an increase in the number of Common Stock and in the percentage of the outstanding Common Stock of the Issuer beneficially owned by the Reporting Person as a result of the completion of the Reporting Person s previously disclosed Future Funding Obligations. Each capitalized term used and not defined herein shall have the meaning assigned to such term in the Original Schedule 13D. Except as otherwise provided herein, each Item of the Original Schedule 13D remains unchanged.

Item 2. Identity and Background.

Item 2 is hereby supplemented to add the following:

The Reporting Persons may be deemed to be members of a group, within the meaning of Section 13(d)(3) of the Act, comprised of the Reporting Persons and the other persons referred to on Schedule A attached to this Schedule 13D (the Separately Filing Group Members). It is the understanding of the Reporting Persons that the Separately Filing Group Members are filing separate Schedule 13Ds pursuant to Rule 13d-1(k)(2) under the Act. Schedule A attached to this Schedule 13D sets forth certain information concerning the Separately Filing Group Members, which information is based solely on the information contained in the Schedule 13Ds filed by the Separately Filing Group Members.

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

Item 3 is hereby supplemented to add the following:

On November 18, 2011, pursuant to the terms of that certain Series A-1 Convertible Preferred Stock Purchase Agreement (as amended, the Stock Purchase Agreement), dated as of April 25, 2011, among the Issuer and the investors referenced therein (the Investors), the Issuer issued an aggregate of 263,178 shares (the Stage II Series A-1 Shares) of its Series A-1 Convertible Preferred Stock, par value \$.0001 per share (the Series A-1 Stock), to the Investors. Such shares were issued in connection with the consummation of the Stage II Closing contemplated by the Stock Purchase Agreement at a purchase price of \$81.42 per share resulting in aggregate proceeds to the Issuer of \$21,427,952.76. On December 14, 2011, pursuant to the terms of the Stock Purchase Agreement, the Issuer issued an aggregate of 263,180 shares (the Stage III Series A-1 Shares) and together with the Stage II Series A-1 Shares, the Series A-1 Shares) of its Series A-1 Stock, to the Investors. Such shares were issued in connection with the consummation of the Stage III Closing contemplated by the Stock Purchase Agreement at a purchase price of \$81.42 per share resulting in aggregate proceeds to the Issuer of \$21,428,115.6. Each share of the Series A-1 Stock is convertible into ten (10) shares of the Issuer s Common Stock, par value \$.0001 per share.

On November 18, 2011, the Reporting Person purchased 25,522 Series A-1 Preferred Stock of the Issuer for an aggregate price of \$2,078,001.24. On December 14, 2011, the Reporting Persons purchased 25,522 Series A-1 Preferred Stock of the Issuer for an aggregate price of \$2,078,001.24. The source of funds for such purchases was the personal funds of the Reporting Person.

The final paragraph of Item 3 is hereby amended to read as follows:

Following the Merger, the Short-Form Merger and the transaction reported in this Amendment No. 1 and assuming the conversion of all issued and outstanding shares of preferred stock of the Issuer, Wellcome (a shareholder of Target prior to the Merger and the Short-Form Merger) owns 2,868,910 shares of Common

Stock (the Wellcome Shares), which includes 2,868,910 shares of Common Stock issuable to Wellcome upon the conversion of 76,566 shares of

Issuer Series A-1 Preferred Stock and 210,325 shares of Issuer Series A-2 Preferred Stock.				
Item 4. Purpose of Transaction.				
The second paragraph of Item 4 is hereby amended to add the following:				
Upon the purchase of the Stage II Series A-1 Shares and the Stage III Series A-1 Shares, Wellcome fulfilled all of its Future Funding Obligations.				
Item 5. Interest in Securities of the Issuer.				
Item 5 is hereby amended and restated in its entirety as follows:				
(a) Assuming the conversion of all issued and outstanding shares of preferred stock of the Issuer, Wellcome is the record owner of the Wellcome Shares.				
Percent of Class: See Line 13 of the cover sheets. The percentages set forth on the cover sheets for each Reporting Person are calculated based upon 21,354,127 shares of outstanding Common Stock being deemed issued and outstanding, which consists of: (i) 599,247 shares of Common Stock that are issued and outstanding and (ii) an aggregate of 20,754,880 shares of Common Stock issuable upon conversion of all shares of Preferred Stock outstanding as of December 14, 2011 following completion of the Stage III Closing contemplated by the Stock Purchase Agreement as disclosed in the Issuer s Current Reports on Form 8-K, filed with the SEC on November 23, 2011 and December 15, 2011 and the Issuer s Prospectus dated November 10, 2011, and as disclosed to the Reporting Persons by the Issuer separately.				
(b) Regarding the number of shares as to which Wellcome has:				
(i) sole power to vote or to direct the vote:				
See Line 7 of the cover sheet.				

(ii)	shared power to vote or to direct the vote:			
See Line 8 of the co	ver sheet.			
(iii)	sole power to dispose or to direct the disposition:			
See Line 9 of the cover sheet.				
(iv)	shared power to dispose or to direct the disposition:			
See Line 10 of the cover sheet.				
Schedule A attached to this Amendment No. 1 sets forth, as of the date hereof, the number of shares owned on an as-converted basis and the percentage of shares as calculated (a) based upon 21,354,127 shares of outstanding Common Stock being deemed issued and outstanding, which consists of: (i) 599,247 shares of Common Stock that are issued and outstanding and (ii) an aggregate of 20,754,880 shares of Common Stock issuable upon conversion of all shares of Preferred Stock outstanding as of December 14, 2011 following completion of the Stage III Closing contemplated by the				
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Stock Purchase Agreement as disclosed in the Issuer s Current Reports on Form 8-K, filed with the SEC on November 23, 2011 and
December 15, 2011 and the Issuer s Prospectus dated November 10, 2011, and as disclosed to the Reporting Persons by the Issuer separately, and
(b) in accordance with Rule 13d-3(d)(1) promulgated under the Exchange Act. All information with respect to the Separately Filing Group
Members is based solely on the information contained in the Schedule 13Ds filed by the Separately Filing Group Members or on information
provided separately to the Reporting Person by the Issuer.

(c)	Except as set forth in item 3 above, wellcome has not effected any transaction in the Common Stock during the last
60 days.	

- (d) No other person is known to have the right to receive or the power to direct the receipt of dividends from, or any proceeds from the sale of, Shares beneficially owned by any of the Reporting Persons.
- (e) Not Applicable.

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

Item 6 is hereby amended and restated in its entirety as follows:

Wellcome is a party to the Amended and Restated Stockholders Agreement dated May 17, 2011, as amended by Amendment No. 1, dated as of November 7, 2011, Amendment No. 2, dated as of November 7, 2011, and Amendment No. 3 dated as of December 15, 2011, by and among the Issuer and the stockholders party thereto, which is attached as Exhibit 10.2 to the Issuer s Current Report on Form 8-K filed with the Securities and Exchange Commission on December 15, 2011 and incorporated by reference herein.

Item 7. Material to be Filed as Exhibits

Item 7 of the Schedule 13D is amended and supplemented as follows:

Exhibit 3 Amended and Restated Stockholders Agreement dated May 17, 2011, as amended by Amendment No. 1, dated as of November 7, 2011, Amendment No. 2, dated as of November 7, 2011, and Amendment No. 3 dated as of December 15, 2011, by and among the Issuer and the stockholders party thereto (incorporated by reference from the Issuer s Current Report on Form 8-K filed with the Securities and Exchange Commission on December 15, 2011).

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.

Date: December 23, 2011

THE WELLCOME TRUST LIMITED AS TRUSTEE OF THE WELLCOME TRUST

By: /s/ Alan Lynch Name: Alan Lynch Title: Head of Property

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Schedule A

Certain Information Regarding the Separately Filing Group Members(1)

Separately Filing Group Member(2)	Outstanding Shares (as converted)	Voting % of Outstanding Shares	Beneficial Ownership
MPM Bioventures III, L.P.	302,750	1.4%	33.6%
MPM Bioventures III-QP, L.P.	4,502,870	21.1%	88.3%
MPM Bioventures III GMBH & Co. Beteiligungs KG	380,540	1.8%	38.8%
MPM Bioventures III Parallel Fund, L.P.	135,960	0.6%	18.5%
MPM Asset Management Investors 2003 BVIII LLC	87,160	0.4%	12.7%
MPM Bio IV NVS Strategic Fund, L.P.	2,987,790	14.0%	83.3%
BB Biotech Ventures II, L.P.	1,896,980	8.9%	76.0%
HealthCare Ventures VII, L.P.	2,292,053	10.7%	81.6%
OBP IV Holdings LLC	1,837,693	8.6%	75.9%
mRNA II - Holdings LLC	18,411	0.1%	3.0%
Healthcare Private Equity Limited Partnership	765,020	3.6%	56.1%
Nordic Bioscience Clinical Development VII A/A	64,430	0.3%	9.7%
Brookside Capital Partners Fund, L.P.	1,228,200	5.6%	67.2%
BB Biotech Growth N.V.	1,228,200	5.6%	67.2%
Ipsen Pharma SAS	173,260	0.8%	22.4%
All other holders of common stock and preferred stock(3)	583,900	2.7%	12.7%

⁽¹⁾All references to the number of shares outstanding are based upon 21,354,127 shares of outstanding Common Stock being deemed issued and outstanding, which consists of: (i) 599,247 shares of Common Stock that are issued and outstanding and (ii) an aggregate of 20,754,880 shares of Common Stock issuable upon conversion of all shares of Preferred Stock outstanding as of as of December 14, 2011 following completion of the Stage III Closing contemplated by the Stock Purchase Agreement as disclosed in the Issuer s Current Reports on Form 8-K, filed with the SEC on November 23, 2011 and December 15, 2011 and the Issuer s Prospectus dated November 10, 2011, and as disclosed to the Reporting Persons by the Issuer separately. Because each stockholder of the Issuer is a party to certain agreements with the other stockholders of the Issuer, which agreements contain, among other things, certain voting agreements and limitations on the sale of their shares of Common Stock, each stockholder of the Issuer may be deemed to be a member of a group, within the meaning of Section 13(d)(3) of the Act (as defined in this Schedule 13D). Shares listed as beneficially owned in this table exclude shares held by any Reporting Person or by any of the other Separately Filing Group Members, in each case as to which the Reporting Person disclaims beneficial ownership.

⁽²⁾ Except as otherwise noted, see the Schedule 13D filed separately by each Separately Filing Group Member on or about the date hereof, which includes information regarding the filer s jurisdiction of organization, principal business, and address of principal office.

⁽³⁾ *See* the Schedule 13D filed jointly on or about the date hereof by the Reporting Persons named therein, which includes information regarding the filer s jurisdiction of organization, principal business, and address of principal office.