



DIVISION OF
CORPORATION FINANCE

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

June 28, 2011

Via E-Mail

C. Richard Edmund Lyttle, President and Chief Executive Officer
Radius Health, Inc.
201 Broadway, 6th Floor
Cambridge Massachusetts 02139

**Re: Radius Health, Inc.
Form 8-K
Filed May 23, 2011
Form 10-K for Fiscal Year Ended December 31, 2010
Filed March 24, 2011
File No. 000-53173**

Dear Mr. Lyttle:

We have reviewed your filings and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filings, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filings and the information you provide in response to these comments, we may have additional comments.

Form 8-K, filed May 23, 2011

Completion of acquisition or Disposition of Assets, page 1

1. Please identify the former stockholders of the target that held 100% of the outstanding capital.
2. We note that the Series A-1 Convertible Preferred Stock Purchase Agreement was amended but are unable to locate such amendment. Please file the amendment as an exhibit.
3. We note that the company has assumed all outstanding options and warrants of the operating company. Please revise to disclose the material terms of the options and warrants.

Description of Business of Radius Health, Inc., page 2
Overview, page 2

4. We note that you hope to get FDA approval for BA058 Injection by the end of 2013. Discuss with greater specificity your estimated timeline for FDA approval for BA058 Microneedle, RAD1901 and RAD140. Include in your discussion the implications to your company, financial and otherwise, should you not be able to attain FDA approval for each product, if approval is delayed, or if additional studies are required.
5. This disclosure appears very technical in nature. Please provide clearer disclosure for investors, such as explaining the various phases of clinical study and defining the more technical terms used.
6. Please provide the disclosure regarding research and development required by Item 101(h)(4)(x) of Regulation S-K.
7. We note your discussion of patents for your four products. Please revise to disclose all of the company's intellectual property. In this regard, we note, on page four, your acquisition of certain patents and "other intellectual property related to BA058" through your license agreement with Ipsen. See Item 101(h)(4)(vii) of Regulation S-K.
8. We note the facts and figures, under *Market Opportunity for BA058* and other portions of the business section, from the National Osteoporosis Foundation and Cowen and Company. Please revise to provide the source of such information, such as a website or publication, and provide us supplementally with copies of the information. Also, we note that certain figures are as of 2005. Please update such statistical information or advise as to why you cannot provide more recent information. Lastly, provide the source for other statistical information in the business section, such as on page 16.
9. Please address the your competitive position in the industry with respect to both of your proposed products, as required by Item 101(h)(4)(iv) of Regulation S-K.

Collaborations and License Agreements, page 17

10. Please revise this section to disclose the material terms of each agreement that governs the company's relationship with the various third parties. Address, among other details the "certain co-marketing and pro-promotion rights retained by Ipsen," as disclosed in note 11 to the financial statements. In addition, we note that Vetter, one of the company's contract manufacturers of portion of the BA058 manufacturing process, is not included in this section. Please explain to us why the relationship has been omitted and revise to disclose the material terms of the contract and file the agreement as an exhibit or advise. See Item 601(b)(10) of Regulation S-K.

11. Revise to address the material terms of the company's agreement with MDS Pharma Services, Inc. and attach the agreement as an exhibit hereto or advise. We note the disclosure in footnote 12 to the financial statements.

Government Regulation, page 19

12. We note your reference on pages 19 and 24 to your dependence on other regulatory authorities in other countries. We further note your risk factor beginning on page 25 states that you need worldwide regulatory approvals to commercialize any of your product candidates. Revise to expand your discussion on government approvals to include international rules, regulations and laws that apply to your company. See Item 101(h)(4)(viii) of Regulation S-K.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 33

13. The Management's Discussion and Analysis section is one of the most critical aspects of your disclosure. As such, we request that you revise this section to provide a more detailed executive overview to discuss the events, trends, and uncertainties that management views as most critical to your future revenues, financial position, liquidity, plan of operations, and results of operations, to the extent known and foreseeable. To assist you in this regard, please refer to the Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations, Release Nos. 33-8350 (December 19, 2003) at <http://www.sec.gov/rules/interp/33-8350.htm>. This guidance is intended to elicit more meaningful disclosure in MD&A in a number of areas, including the overall presentation and focus of MD&A, with general emphasis on the discussion and analysis of known trends, demands, commitments, events and uncertainties, and specific guidance on disclosures about liquidity, capital resources, and critical accounting.
14. We note your discussion of research and development expenses on pages 33-34. Revise to disclose your estimated future research and development expenses for each product candidate. In this regard, we note your active goal of attaining FDA approval for four products. Also, discuss estimated total expenses needed to bring each potential product through the FDA registration process and to bring the product to market, and discuss the anticipated time frame for each stage of the business plan.
15. Revise the discussion in its entirety to explain the reasons for the changes in income statement line items for the annual financial statements and for the interim financial statements. If there are multiple reasons for these changes, please identify and quantify (to the extent practicable) each causal factor. You should also provide a discussion of liquidity that describes and clarifies the major items disclosed in the statement of cash flows. Please refer to Item 303 of Regulation S-K and SEC Release No. 33-8350.

Financings, page 41

16. On page two you disclose issuing an aggregate of 7,895,535 shares of Series A-1 Preferred Stock to investors. On page 42 you disclose issuing 263,177 and 526,358 shares or an aggregate of 789,535 Series A-1 preferred shares to investors. Please revise all share and per share information in this filing to retroactively reflect the reverse stock split disclosed in Note 14, as applicable.

License Agreement Obligations, page 42

17. We note that you have redacted specific royalty percentages from the discussion of license agreements. Please revise to disclose the potential range of royalty payments and state the duration of the royalty payments. Also, please disclose the amount of license payments that have been paid to date pursuant to each license agreement. Lastly, we note the milestone payments. Please disclose the milestone payments that have been paid to date and disclose the total aggregate milestone payment to be paid under each agreement.

Changes and Disagreements with Accountants on Accounting and Financial Disclosure, page 43

18. Please note that a change in accountants is presumed to have occurred unless one accountant audited the premerger financial statements of both parties to the merger. The accountant who is no longer associated with the continuing entity is considered to be the predecessor accountant. Please revise the disclosure under this heading to provide all of the disclosures set forth in Item 304 of Regulation S-K. Also include a letter from the former accountant regarding its concurrence or disagreement with the statements made by you in the current report.

Management, page 44

19. We note that you have not included any disclosure regarding Mr. Auerbach's qualifications to serve as a director. Please revise to provide the specific experience, qualifications, attributes or skills that led to the conclusion that the individual should serve as a director of the registrant. See Item 401(e) of Regulation S-K.
20. For each employment listed, please disclose the beginning and end dates. For instance, it is unclear how long Dr. Gadicke has been Managing Director of MPM Capital and the business experience of Mr. Graves from 2009 to the present is unclear.

Certain Relationships and Transactions, page 47

21. It appears that the merger transaction involved affiliated parties. Please add disclosure in this section. We note that Dr. Gadicke was a control person for the shell company and also controls 40% of the common stock for Radius Health. Please add disclosure, including the sale of the shares in the shell as part of the merger transaction.

Transactions with Related Parties, page 48

22. In the second paragraph under this heading, you disclose that prior to the merger, MPM Asset Management LLC was the sole stockholder of MPM Acquisition and an investment fund affiliated with MPM Asset Management LLC was a shareholder of Radius Health. Please identify each investor in Radius Health prior to the merger and also provide the percentage of ownership held by each shareholder.

Director Independence, page 48

23. Please revise to clarify the number of directors the company has. On page 48, under this heading, you state that you presently have only two directors, presumably Messrs. Lyttle and Harvey, but your table on page 44 lists seven directors. Please also reconcile this disclosure with the additional disclosure on page 44 that states Mr. Harvey was a director until consummation of the merger on May 17, 2011.

Executive and Director Compensation, page 49

24. We note on page 50 that the company does not have a formal policy for determining compensation for executive officers. Please revise to discuss what factors led to determination of salary and bonus of each named executive officer.
25. Please revise to provide the disclosure required by Item 402(o) of Regulation S-K. Among other details, revise to disclose the material terms of each named executive officer's employment agreement or advise.
26. To the extent the company has or intends to change its compensation policy as a result of becoming a public company, please disclose. Any new employment or other compensation agreements should be filed as exhibits.
27. We note that the bonus for 2010 has not yet been determined. Please revise to disclose when such amount is expected to be determined and confirm that you will disclose such amount in a filing under Item 5.02(f) of Regulation S-K. See Instruction 1 to Item 402(n)(2)(iii) and (iv) of Regulation S-K.
28. Your disclosure regarding the 2003 Option Plan does not appear to be complete. Please revise to disclose the material terms of the plan.

29. Please include a footnote to the directors' compensation table disclosing all assumptions made in the valuation by reference to a discussion of those assumptions in the smaller reporting company's financial statements, footnotes to the financial statements, or discussion in the Management's Discussion and Analysis. See the Instruction to Item 402(r) of Regulation S-K. Also, for each director, disclose by footnote to the appropriate column, the aggregate number of stock awards and the aggregate number of option awards outstanding at fiscal year end. See the Instruction to Item 402(r)(2)(iii) and (iv).
30. Provide estimated potential payouts to the named executive officers if there is a termination or change in control. Consider providing such disclosure in tabular format.

Security Ownership of Certain Beneficial Owners and Management, page 53

31. Please explain how you calculated the percentage of ownership by officers and directors as a group, as it appears the percentage should be approximately 64%.
32. Please disclose the control person(s) for each entity listed in the table.

Recent Sales of Unregistered Securities, page 56

33. Name the persons or class of persons for each transaction, as required by Item 701(b) of Regulation S-K.
34. Revise to state briefly the facts relied upon, for each unregistered sale of securities, to make the exemptions available. See Item 701(d) of Regulation S-K.
35. On page 57, you state that 64,430 shares of Series A-5 preferred stock was issued to Nordic but on page 42, you state that 64,430 shares of Series A-1 preferred stock was issued to Nordic. Please revise to reconcile the disclosure regarding this private placement.
36. Please revise this section to disclose the consideration for each unregistered sale, as required by Item 701(c) of Regulation S-K.

Description of Securities, page 57

37. Revise to provide complete Regulation S-K Item 202 disclosure for each class of the company's securities, including your common stock. In this regard we note, nonexclusively, that your Certificate of Designations addresses liquidation rights and note 9 to the financial statements addresses redemption and liquidation rights. Consider addressing each class of securities separately for purposes of clarity.

Indemnification of Directors and Officers

38. Revise to provide complete Regulation S-K Item 702 disclosure. In this regard we note the various indemnification agreements attached hereto as exhibits.

Exhibits

39. We note that you are incorporating by reference the Merger and Redemption Agreements from a Form 8-K, filed with the Commission on April 25, 2011. Revise your exhibit list to include these agreements. This would include all related agreements, and the loan agreement referenced in Item 2.01.
40. Exhibits 4.1, 10.1, 10.2, 10.4, 10.6, 10.10, 10.11, 10.12, 10.20, 10.21, 10.25, 10.26, 10.51, 10.63 and 10.64 appear to be missing exhibits, schedules, appendices or attachments. We also note that exhibit 10.1 to the Form 8-K filed on April 29, 2011 is missing exhibits and schedules. Please file these exhibits in their entirety with your next amended filing. See Item 601(b)(10) of Regulation S-K.
41. We note the letter of intent with Nordic Bioscience and the two extensions. Please file as exhibits.
42. We are unable to locate the articles of incorporation and bylaws of the company. Please file as exhibits, as required by Item 601(b)(3) of Regulation S-K.

Exhibit 99.1

43. Please revise the audit report to include the name and signature of your independent registered public accounting firm.

Exhibit 99.2

Notes to Unaudited Pro Forma Condensed Combined Financial Information

Pro Forma Adjustments

44. Please explain why the exchange of preferred stock for preferred and common stock and the forfeiture of dividends in the recapitalization of Radius Health is treated as an extinguishment of preferred stock and reference the literature that supports your conclusion.

45. We refer you to paragraph four under the heading Unaudited Pro Forma Condensed Combined Financial Statements. Please disclose why the accounting for the forfeiture of dividends is preliminary and, to the extent that significantly different results may occur, please expand and include disclosure and a presentation that gives effects to the range of possible results.
46. Please also disclose whether there will be any related tax effects for the forfeiture of dividends.
47. Please tell us and disclose how you determined the values presented as the adjustment to establish the issuance of Series A-1 through A- 4 Convertible Preferred Stock.
48. Please include a footnote that explains how you derived weighted average shares outstanding in the basic and diluted earnings per share calculations. In doing so, explain how periods prior to the merger reflect the exchange ratio established in the merger agreement as affected for the conversion of preferred shares and other common stock equivalents.

Form 10-K for Fiscal Year Ended December 31, 2010

49. Please confirm in future filings that, in addition to the principal executive and accounting officers, your report will be signed by your principal financial officer. See Paragraph D.2(a) of Form 10-K General Instructions.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

C. Richard Edmund Lyttle
Radius Health, Inc.
June 28, 2011
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You may contact Brian McAllister at (202) 551-3341 or Tia Jenkins at (202) 551-3871 if you have questions regarding comments on the financial statements and related matters. Please contact Erin Wilson at (202) 551-6047 or Pamela Howell at (202) 551-3357 with any other questions.

Sincerely,

/s/ Pamela Howell
for

John Reynolds
Assistant Director