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

DIVISION OF
CORPORATION FINANCE

October 10, 2012

Via E-mail
Mr. Ori Shilo
Deputy Chief Executive Officer Finance and Operations
RedHill Biopharma Ltd.
21 Ha'arba'a Street
Tel Aviv 64739, Israel

Re: RedHill Biopharma Ltd.
Draft Registration Statement on Form 20-F
Submitted September 12, 2012
CIK No. 0001553846

Dear Mr. Shilo:

We have reviewed your draft registration statement 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 by providing the requested information and either submitting an amended draft registration statement or filing your registration statement on EDGAR. 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 the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Draft Registration Statement on Form 20-F

General

1. Please note that our comments on your request for confidential treatment of exhibits to your draft registration statement will be provided under separate cover.

2. Please amend your filing to disclose the exchange rate between the U.S. dollar and NIS as of the latest practicable date, and amend all related discussion to reflect this exchange rate. We note that the relevant disclosure appears on pages 45-46, 53, 60-63, and 82-83.

Item 3. Key Information
D. Risk Factors, page 3
"Clinical trials may involve and lengthy and expensive process . . .," page 5

3. To the extent that you have experienced any problems with your clinical trials such as those described in the bullet points on page 6, please revise to describe those problems.

"Any collaborative arrangements that we establish may not be successful . . .," page 6

4. To the extent that you have experienced any problems with your collaborative arrangements such as those described in the bullet points on page 7, please revise to describe those problems.

"If third parties do not manufacture our therapeutic candidates . . .," page 8

5. It appears this risk factor discusses two risks: the risk to your company of relying on third parties for the manufacture of their therapeutic candidates, and the risk to your company of your single supply source for your APIs. Please amend your disclosure to discuss these risks in separate risk factors, each accompanied by a specific, descriptive risk factor header.

6. In the risk factor discussing your single supply source for your APIs, please identify the source. If you have a written agreement with this source, please expand your disclosure in Item 4 to describe the material terms of the agreement, including each party's obligations, the term of the agreement, and any termination provisions. Please also file the agreement as an exhibit to your registration statement.

7. To the extent that you have experienced any problems with the third-party manufacturers or supply source such as those described in this risk factor, please revise to describe those problems.

"We and our third-party manufacturers are, and will be, subject to regulations . . .," page 8

8. To the extent that you have experienced any problems with the third-party manufacturers relating to cGMP, please revise to describe those problems.

"If we cannot meet requirements under our acquisition or in-license . . .," page 10

9. Please amend the header of this risk factor to also describe the risk to your company of not renewing or renegotiating your in-licensing agreements.

10. Please identify in the text of the risk factor the in-license agreements that are subject to renegotiation or renewal. In addition, please disclose when these contracts will come up for renegotiation or renewal.

"Our business could suffer if we are unable to attract and retain key . . .," page 10

11. Please amend this risk factor to identify the key employees on which you rely.

12. To the extent that you have experienced any problems attracting or retaining qualified personnel, please revise to describe those problems.

"We could be exposed to significant drug product liability claims . . .," page 13

13. Please expand this risk factor to quantify the extent of your product liability insurance coverage.

"Our business involves risks related to handing regulated substances . . .," page 14

14. To the extent you have experienced any problems such as those described in this risk factor, please revise to disclose those problems.

"We may be a passive foreign investment company . . .," page 16

15. Disclose in this risk factor, as you have done on page 94 of the registration statement, that "[b]ased on [your] estimated gross income, the average value of [your] gross assets, and the nature of [your] business, [you] believe that [you] may be classified as a PFIC in the current taxable year and in future years." This statement of belief conveys a greater risk than your statement that "there can be no assurance that we will not be considered a PFIC for 2012 or for any future taxable year."

"As a foreign private issuer, we are permitted to follow certain . . .," page 18

16. Clarify that you may follow home country practice in Israel with regard to composition of the board of directors, which does not require that a majority of a company's board be independent.

"We currently do not anticipate paying cash dividends, . . .," page 19

17. Please add a risk factor that discloses that the deposit agreement governs the rights of ADR holders to receive dividends or other distributions, and discusses whether under the deposit agreement, ADR holders may not have the same rights to, and in some circumstances, may not receive dividends or other distributions issued by you to ordinary shareholders.

"Your rights and responsibilities as a shareholder will be governed . . .," page 22

18. Please revise the risk factor heading to reference obligations rather than rights, and to indicate that Israeli law may impose obligations and liabilities on a shareholder of an Israeli corporation that U.S. states do not impose upon shareholders of corporations incorporated in their respective states.

Item 4. Information on the Company
B. Business Overview, page 22
Our Therapeutic Candidates, page 23

19. If you have submitted an Investigational New Drug application to the FDA other than the one described on page 30, please disclose this fact and state when you filed this application.

RHB-104, page 28

20. You state on page 29 that you have entered into an agreement with Quest Diagnostics Ltd. to develop a commercial diagnostic test for detecting the presence of MAP bacteria in the blood. Please expand your disclosure of this agreement to describe all material terms, including each party's obligations, any financial provisions, the term, and any termination provisions. In addition, please file this agreement as an exhibit to your registration statement, or provide us with a legal analysis as to why this agreement need not be filed pursuant to Instruction 4(a) to Exhibits of Form 20-F.

RHB-106, page 32

21. Please identify the manufacturer of the drug PrepoPik.

Acquisition and License Agreements, page 34

22. Please expand your descriptions of the license agreements governing RHB-101, RHB-102, RHB-103, and RHB-104 that RedHill is entitled to terminate the agreement at any time.

23. You discuss an obligation under your joint development and commercialization agreement with IntelGenx Corp to finance RHB-103 development "in the amount of approximately $849,000 subject to deviations of 10%." However, on page 50, you indicate that clinical trials for RHB-103 were successfully completed as of June 30, 2012. We are unable to determine to what extent these development costs have been recognized through this date. Please quantify these development costs for each period, quantify your obligation for this financing obligation at June 30, 2012 and refer us to the technical guidance that served as a basis for your accounting treatment.

License Agreement for RHB-103, page 35
Acquisition of RHB-104, RHB-105, and RHB-106, page 36
License Agreement for MAP diagnostic test related to RHB-104, page 37
Manufacturing Agreement Related to RHB-105, page 38
Manufacturing Agreement Related to RHB-106, page 38
Clinical Services Agreement Related to RHB-104, page 38

24. Please expand your description of the material terms of the above agreements to disclose the term and termination provisions.

25. Please revise your description of the Clinical Services Agreement related to RHB-104 to disclose the aggregate amount of milestones payable under the agreement.

Manufacturing Agreements, page 37

26. Please explain the purpose and key terms governing the installment payment obligations under your manufacturing agreements.

Intellectual Property, page 39

27. Please expand your description of the "Monopithic tablet for controlled drug release" patent family to identify the jurisdictions in which the three issued patents were granted.

D. Property, Plant and Equipment, page 45

28. Please file the lease agreement dated February 23, 2011 as an exhibit to your registration statement, or provide a legal analysis as to why the lease agreement need not be filed pursuant to Instruction 4(b)(iv) to Exhibits of Form 20-F.

Item 5. Operating and Financial Review and Prospects
F. Tabular Disclosure of Contractual Obligations, page 56

29. Please disclose the installment payment obligations under your manufacturing agreements.

Item 6. Directors, Senior Management and Employees
B. Compensation, page 60
Employment Agreements, page 60

30. Please file all executed employment agreements with your executive officers, pursuant to Instruction 4(c) to Exhibits of Form 20-F.

C. Board Practices, page 64

31. Please add a risk factor addressing the risks to your company from the provisions in Israeli Companies Law regarding indemnification of office holders, as described on page 72.

Nasdaq Stock Market Listing Rules and Home Country Practices, page 68

32. Please clarify how the shareholder approval requirements under the Israeli Companies Law are different than the shareholder approval requirements under the Nasdaq Marketplace Rules.

E. Share Ownership, page 74

33. You provide information regarding the number of people you employ as of August 31, 2012. Please amend the disclosure in this section to reflect the most recent practicable date.

Item 7. Major Shareholders and Related Party Transactions
A. Major Shareholders, page 77

34. The disclosure in this section reflects ownership as of August 31, 2012. Please amend the information to reflect the most recent practicable date. Please refer to Item 7 of Form 20-F for guidance.

35. We note your disclosure that the "All of the information with respect to beneficial ownership of the ordinary shares is given to the best of our knowledge." Please tell us why you need to qualify your disclosure "to the best of [your] knowledge." Please explain or delete the qualifying language.

36. Please expand your filing to provide the disclosure required by Item 7.A.2 of Form 20-F.

Item 10. Additional Information
C. Material Contracts, page 88

37. On page 90, you refer to the Manufacturing Agreements described on pages 37-39 as "material agreements." However, not all manufacturing agreements have been filed as exhibits to your registration statement pursuant to Instruction 4(a) as to Exhibits of Form 20-F. Specifically, the manufacturing agreements related to RHB-102, RHB-105, and RHB-106 with Pharmaceutics International, Inc. and Corealis Pharma Inc. have not been filed. Please file these material agreements as exhibits, or provide us with a legal analysis as to why these agreements need not be filed pursuant to Instruction 4(a) to Exhibits of Form 20-F.

E. Taxation, page 90
Israeli Tax Considerations, page 90

38. This section should address the material tax consequences under Israeli law concerning the purchase, ownership and disposition of your shares by U.S. holders and not just be "a summary of the current tax regime of the State of Israel. . ." Please revise accordingly.

39. Delete your disclaimer that the Israeli tax discussion "is not intended and should not be construed as legal or professional tax advice" since it inappropriately implies that an investor is not entitled to rely on the tax information disclosed in the registration statement.

Item 12. Description of Securities Other Than Equity Securities

40. Please disclose that, in connection with this Form 20-F registration statement, a Form F-6 has been filed to register the ADSs under the Securities Act. Please further inform investors that attached to the Form F-6 is a copy of the deposit agreement to which they may refer.

41. Please expand your discussion under this section to explain:

- How ADSs are issued;
- How ADS holders may withdraw the deposited securities;
- How ADS holders may interchange between certificated and uncertificated ADSs;
- Whether the failure to give timely instructions to the depositary regarding the exercise of voting rights will result in granting a discretionary proxy to the depositary;
- Whether the exercise of voting rights is conditioned under certain circumstances on the timely withdrawal of the underlying securities;
- The fee structure under the deposit agreement;
- The effect of reclassifications, recapitalizations and mergers on the ADSs; and
- Whether the deposit agreement permits the pre-release of ADSs and, if so, whether the conditions governing such pre-release include the pre-release's full collateralization with cash or other collateral that the depositary considers appropriate.

Item 18. Financial Statements
Note 2 - Summary of Significant Accounting Policies, page F-14
General

42. Please disclose your accounting treatment for the installment payment obligations to your manufacturers, which aggregate $11.7 million.

43. Disclose your accounting policy for costs incurred for clinical trials but have not yet been billed to you.

Note 12 - Mandatory Convertible Loans and Royalty Obligation to Investors, page F-32

44. In August 2010, your initial royalty obligation represented the difference between consideration received and the fair value of the mandatory convertible loans, which in subsequent periods will accrete at a 27.98% effective interest rate. Prior to your February 2011 initial public offering, these loans converted into 19,818,314 ordinary shares. Please explain to us the method and key assumptions used to estimate the ultimate value of this royalty obligation, the period over which you expect it to be paid and your basis for using the 27.98% accretion rate. Refer us to the technical guidance upon which you based your accounting treatment for this obligation.

45. Please explain the relationship between the 5-year royalty payment term "since beginning of commercial sales for one of the therapeutic candidates" and the royalty payment timeframe disclosed on page F-26.

46. Please explain the 5% royalty provision of the mandatory convertible loans that states "income of the Company from advances or milestones as part of licensing transaction will be paid over 5 years starting on August 11, 2010."

Note 21-Loss Per Ordinary Share, page F-45

47. Please explain the relationship between weighted average ordinary shares for 2009 and the corresponding amounts shown in the statements of changes in equity.

General

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's September 26, 2012 announcement on the SEC website at http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures.htm.

Regardless of whether you submit your correspondence in connection with your confidential draft registration statement on EDGAR or via secure e-mail, please keep in mind that we may publicly post filing review correspondence in accordance with our December 1, 2011 policy (SEC Staff to Release Filing Review Correspondence Earlier). If you intend to use Rule 83 (17 CFR 200.83) to request confidential treatment of information in the correspondence you submit on EDGAR, please properly mark that information in each of your confidential submissions to us so we do not repeat or refer to that information in our comment letters to you.

You may contact Frank Wyman at (202) 551-3660 or Lisa Vanjoske at (202) 551-3614 if you have questions regarding comments on the financial statements and related matters. Please contact Rose Zukin at (202) 551-3239 or me at (202) 551-3710 with any other questions.

Sincerely,

/s/ Jeffrey P. Riedler

Jeffrey P. Riedler
Assistant Director