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

DIVISION OF
CORPORATION FINANCE

March 5, 2013

Via E-mail
Dr. Yaron Daniely
Chief Executive Officer, President and Director
Alcobra Ltd.
65 Rothschild Blvd.
Tel Aviv 65785 Israel

Re: Alcobra Ltd.
Amendment No. 1 to Registration Statement on Form F-1
Filed February 19, 2013
File No. 333-186003

Dear Dr. Daniely:

We have reviewed your amended registration statement and response letter each filed February 19, 2013, 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 amending your registration statement and providing the requested information. 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 registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. We have reviewed your response to prior comment 45. Please expand your disclosure throughout your registration statement to clarify that you have not yet submitted an Investigational New Drug Application to the FDA.

Risk Factors

Risks Related to Product Development, Regulatory Approval and Commercialization, page 5

2. We note your response to our prior comment 38 regarding additional regulation and the increase in time and expense associated with pediatric clinical trials. Please expand your risk factor disclosure to specifically identify these and any other associated risks of developing MG01C1 for pediatric indications.

We have no manufacturing capacity and anticipate reliance on third-party…," page 14

3. We note your response to our prior comment 18 that the reference to a contaminated lot was an error. It is unclear from your response whether the reference was included in error or whether there was not actually a contaminated lot. Please advise us as to whether there was, in fact, a contaminated lot received from your manufacturer. To the extent that there was a contaminated lot discovered, we could consider this to be material information and the reference should be reinstated with additional disclosure as requested pursuant to our prior comment 18 as well as further disclosure as to the nature, extent and causes of the contaminated lot as well as remedial measures and effects of this event on your operations.

"Any collaboration arrangements that we may enter into in the future may not be successful…," page 15

4. We note your response to our prior comment 19. Your risk factor includes the risk that future collaborations that you enter into may not be successful and that circumstances may lead to a termination of the agreement. Since Teva failed to timely exercise an option to continue development of MG01CI in November 2011, this should be disclosed as an example of a collaboration arrangement that was recently terminated. In addition, your risk factor refers to "significant competition in seeking appropriate collaborators." To the extent that the termination of your prior relationship with Teva Pharmaceuticals may limit the potential collaborators available in a competitive environment, reference to the terminated relationship is material. Please revise your disclosure to reference your prior relationship with Teva Pharmaceuticals.

"The recently enacted JOBS Act will allow us to postpone the date by which we must comply with some of the laws and regulations…," page 21

5. We note your response to our prior comment 34 and your revised disclosure. Please provide a separately titled risk factor noting your election to use the extended transition period for complying with new or revised accounting standards under Section 102(b)(1) and explaining that this election allows you to delay the adoption of new or revised accounting standards that have different effective dates for public and private companies until those standards apply to private companies. Please state in your risk factor that, as a result of this election, your financial statements may not be comparable to companies that comply with public company effective dates.

"Exchange rate fluctuation between the U.S. dollar and the New Israeli Shekel…," page 23

6. The disclosure does not appear to have been revised in response to our prior comment 27 as your response indicates. Please revise to include a placeholder for disclosure of the exchange rate between the U.S. dollar and the New Israeli Shekel as of the latest practicable date.

Use of Proceeds, page 26

7. In response to prior comment 17, you disclose that you expect that funds from this offering will enable you to complete one of the two Phase III clinical trials that are necessary prior to filing your NDA with the FDA. Please revise the last sentence in this section to clarify.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Research and Development Expenses, page 30

8. It does not appear as though a disclosure was revised in response to comment 33 as you state in your response. Please separately quantify the amounts incurred for the third party clinical consultants, clinical trials, salaries and related personnel expenses, travel expenses, and share-based compensation that are included in research and development expenses for the financial statement periods presented.

Business, page 36

9. We note your disclosure on page 23 concerning your royalty-bearing grant from Israel's OCS. Please expand your business section to disclose all the material terms of this funding agreement, including the restrictions on your business activities and share ownership, the technology developed under this agreement, the royalty payments, any payments that may be required if technology is transferred out of Israel, term and termination provisions, the payments made to date and whether you received approval for or made additional payments relating to your use of a manufacturer in Ohio.

Clinical Results, page 40

10. We have reviewed your response to prior comment 48. Although you disclose that each finding was statistically significant with a p value of <0.05, the actual p value is material information that should be disclosed in your filing. Accordingly, please expand your disclosure of your Phase IIa study to disclose the relevant p values. Please also disclose the meaning and significance of p values.

11. We have reviewed your response to prior comment 50. Please revise your disclose in the paragraph preceding your graph on page 41 to clarify that 10 subjects were evaluated in this small extension study.

Former Strategic Relationship with Teva Pharmaceuticals, page 43

12. In response to our prior comment 53, you state that you do not have any continuing obligations to Teva other than that Teva continues to be a shareholder with related rights. Please expand your disclosure to include this information in your registration statement.

Principal Shareholders, page 65

13. As previously requested, disclose the number of your U.S. holders and percentage of shares held by them. Item 7.A.2. of Form 20-F requires you to provide this U.S. ownership disclosure even if there is only one U.S. holder owning less than 5% of your outstanding shares.

Taxation

Israeli Tax Considerations, page 75

14. Please refer to our prior comment 60. As previously requested, include in your PFIC risk factor the fact that, should you be classified as a PFIC, you do not intend to furnish the information necessary for U.S. holders to make qualified electing fund elections that would provide some relief from the PFIC rules.

Financial Statements
Notes to Financial Statements

Note 6: Convertible Notes, page F-15

15. Please revise your response to comment 61 to clarify the following:
    - Timing and the amount of beneficial conversion feature that was initially recognized; and
    - Why you believe that the interest method under ASC 835-30 applies. It should be noted that ASC 835 does not modify the accounting for convertible debt securities. Refer to ASC 835-30-15-4.

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 Act of 1933 and all applicable Securities 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.

You may contact Keira Nakada at (202) 551-3659 or Lisa Vanjoske at (202) 551-3614 if you have questions regarding comments on the financial statements and related matters. Please contact Karen Ubell at (202) 551-3873, Jennifer Riegel at (202) 551-3575, or me at (202) 551-3710 with any other questions.

Sincerely,

/s/ Jennifer Riegel for

Jeffrey P. Riedler
Assistant Director

cc: Via E-mail
Edwin L. Miller, Jr.
ZAG/S&W LLP