

Mail Stop 6010

August 23, 2007

Dr. Michael Fonstein
Chief Executive Officer & President
Cleveland BioLabs, Inc.
11000 Cedar Ave.
Suite 290
Cleveland, Ohio 44106

**Re: Cleveland BioLabs, Inc.
Registration Statement on Form SB-2
Filed June 14, 2007
File No. 333-143755**

Dear Dr. Fonstein:

This is to advise you that we have limited our review of the above referenced registration statement to the issues identified below. We will make no further review of this filing.

Each of our comments requests that you revise your filing to provide additional disclosure about the selling security holders or the transaction or transactions in which they purchased the registrant's securities. We will consider your supplemental explanation if you believe a comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation.

General

1. We have reviewed your responses to our prior comments. Given the nature and size of this offering, the offering appears to be a primary offering. Therefore, unless you revise the nature and/or size of this offering, you will need to do the following:
 - file a registration statement for the "resale" offering at the time of each conversion of preferred stock or exercise of warrants because you are not eligible to conduct the offering on a delayed or continuous basis under Rule 415(a)(1)(x);

- register the transaction on the form you are eligible to use to register the transaction as a primary offering (either Form SB-2 or Form S 1);
- identify the selling shareholders as underwriters in the registration statement; and
- include the price at which the underwriters will sell the securities.

Dollar Value of Underlying Securities

2. We note your response to comment 1. Please revise the disclosure on pages 4 and 78 to state that the common shares issuable on conversion of the Series B Preferred and exercise of the warrants had a market value of \$46,660,112 on March 16, 2007, rather than stating that the Series B Preferred had a market value of \$46,660,112.

Prior Transactions Between the Issuer and the Selling Shareholders

3. We note your response to comment 6. Please revise your table to identify each selling shareholder who purchased shares of Series A Preferred Stock in the March 16, 2005 private placement and disclose the shares issued or issuable to each of these investors separately.

Comparison of Registered Shares to Outstanding Shares

4. We note your response to comment 7. Please revise your table to include a separate line for each selling shareholder rather than presenting the information in the aggregate.

The issuer's intention and ability to make all payments and the presence or absence of short selling by the selling shareholders

5. Please revise your registration statement to include the information provided in your response to comment 8.

As appropriate, please amend your filing in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

Please contact Sonia Barros at (202) 551-3655 or Suzanne Hayes at (202) 551-3675 with any questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director

cc: Ram Padmanabhan, Esq.
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525 West Monroe Street
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