

Mail Stop 4720

September 15, 2009

Dr. Michael Fonstein
Chief Executive Officer and President
Cleveland BioLabs, Inc.
73 High Street
Buffalo, New York 14203

Re: Cleveland BioLabs, Inc.
Form S-3/A
Filed August 27, 2009
File No. 333-160648

Dear Dr. Fonstein:

We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. We note that you anticipate that the Series B convertible preferred stock will convert on or about September 16, 2009. Please confirm that the conversion has occurred and provide the calculation supporting your calculation that the shares being registered represent 29% of the unaffiliated public float or further reduce the number of shares that you are registering for resale.

2. In your next amendment, please include the proposed disclosure you have set forth in your response to our comment letter. We may have additional comments.

Payments to the Investor and Affiliates

3. Please include the potential liquidated damages in your calculation and revise your response to prior comment 6 accordingly.

Selling Shareholders, page 8

4. Please disclose in your next amendment which selling stockholders are affiliated with each other and the total amount being registered by this group.

As appropriate, please amend your registration statement 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 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 Nandini Acharya at (202) 551-3495, Suzanne Hayes, Legal Branch Chief, at (202) 551-3675 or me at (202) 551-3715 with any questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director

cc: Ram Padmanabhan, Esq.
Katten Muchin Rosenman LLP
525 W. Monroe Street
Chicago, Illinois 60661