

Via Facsimile and U.S. Mail  
Mail Stop 6010

September 26, 2008

Mr. John A. Marhofer, Jr.  
Chief Financial Officer  
Cleveland Biolabs, Inc.  
33 Hayden Avenue  
Lexington, MA 02421

**Re: Cleveland Biolabs, Inc.**  
**Form 10-K for the Year Ended December 31, 2007**  
**Form 10-Q for the Quarterly Period Ended March 31, 2008**  
**Form 10-Q for the Quarterly Period Ended June 30, 2008**  
**File No. 001-32954**

Dear Mr. Marhofer:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. In our comments, we ask you to provide us with information to better understand your disclosure. Where a comment requests you to revise disclosure, the information you provide should show us what the revised disclosure will look like and identify the annual or quarterly filing, as applicable, in which you intend to first include it. If you do not believe that revised disclosure is necessary, explain the reason in your response. After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

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 filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 22

Critical Accounting Policies, page 24

R&D Expenses, page 25

1. In the business section you state that you have devoted substantially all of your resources to the identification, development and commercialization of new types of drugs. However, you did not include disclosures related to research and development expenses incurred or expected to be incurred. Please refer to the Division of Corporation Finance "Current Issues and Rulemaking Projects Quarterly Update" under section VIII – Industry Specific Issues – Accounting and Disclosure by Companies Engaged in Research and Development Activities. You can find it at the following website address:  
<http://www.sec.gov/divisions/corpfin/cfcrq032001.htm#secviii>.

Please disclose the following information for each of your major active research and development project(s):

- a. The costs incurred during each period presented and to date on the project.
- b. The nature, timing and estimated costs of the efforts necessary to complete the project;
- c. The anticipated completion dates;
- d. The risks and uncertainties associated with completing development on schedule, and the consequences to operations, financial position and liquidity if the project is not completed timely; and,
- e. The period in which material net cash inflows from significant projects are expected to commence.

To the extent that information is not estimable, disclose those facts and circumstances indicating the uncertainties that preclude you from making a reasonable estimate.

Financial Statements

Note 2. Summary of Significant Accounting Policies

L. Revenue Recognition, page F-10

2. Please tell us why it is appropriate under GAAP to recognize grant revenue when an invoice is submitted, instead of at the time the costs are incurred.

Note 8. Subsequent Events, page F-29

3. Please provide to us the analysis that you performed under SFAS 123(r) to determine that the cost of the stock options awarded subsequent to year end was appropriately recorded during the period ended December 31, 2007 and appropriately recaptured in 2008. Please reference the appropriate paragraphs relied on in the authoritative literature.

Exhibits 31.1 and 31.2

4. Please tell us why you did not use the exact introductory language in paragraph 4 as required by Item 601(b)(31) of Regulation S-K. The language of the certifications filed with your most recent quarterly reports is also incorrect.

\* \* \* \*

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provide the requested information. Detailed letters greatly facilitate our review. Please furnish your letter on EDGAR under the form type label CORRESP.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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 connection with responding to our comments, please provide, in your letter, a 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comment on your filing.

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You may contact Ibolya Ignat, Staff Accountant at (202) 551-3656, or Mary Mast, Senior Staff Accountant, at (202) 551-3613 if you have questions regarding these comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg  
Senior Assistant Chief  
Accountant