

Via Facsimile and U.S. Mail  
Mail Stop 6010

December 22, 2008

Louis Ploth, Jr.  
Chief Financial Officer  
Repros Therapeutics, Inc.  
2408 Timberloch Place, Suite B-7  
The Woodlands, TX 77380

**Re: Repros Therapeutics, Inc.  
Form 10-K for the Fiscal Year Ended December 31, 2007  
Form 10-Q for the quarterly period ended September 30, 2008  
File No. 1-15281**

Dear Mr. Ploth, Jr.:

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 document. 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 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.

**Form 10-K for the fiscal year ended December 31, 2007**

Management's Discussion and Analysis  
Critical Accounting Policies and Use of Estimates, page 29

1. 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 research and development projects:

- 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 finally
- e. The period in which material net cash inflows from significant projects are expected to commence.

Regarding a., if you do not maintain any research and development costs by project, disclose that fact and explain why management does not maintain and evaluate research and development costs by project. Provide other quantitative or qualitative disclosure that indicates the amount of the company's resources being used on the project.

Regarding b. and c., disclose the amount or range of estimated costs and timing to complete the phase in process and each future phase. To the extent that information is not estimable, disclose those facts and circumstances indicating the uncertainties that preclude you from making a reasonable estimate.

2. Please tell us what consideration was given to disclosing accrued research and development expenses as a critical accounting policy particularly considering the significant increase in this accrual during 2008. It appears this policy is important to the portrayal of your financial condition and results of operations, and may require subjective or complex judgments. When considering revised proposed disclosure, please include greater insight into the quality and variability of how the estimate for preclinical study and clinical trial accruals is determined. Please address the following factors in your discussion:
  - How the company arrived at the estimate
  - How accurate the estimate/assumption has been in the past
  - How much the estimate/assumption is reasonably likely to change in the future

### **Form 10-Q for the Quarter Ended September 30, 2008**

#### Consolidated Statements of Cash Flows, page F-17

3. Please also tell us the guidance that you relied upon in reporting the purchases and sales of trading marketable securities on a net basis on a single line item instead of on a gross basis in accordance with the guidance of paragraphs 11-13 of SFAS 95.

\*\*\*\*\*

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 response to our comments and provide the requested information. Detailed letters greatly facilitate our review. Please furnish the letter to us via 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 comments on your filing.

Please contact Sasha Parikh, Staff Accountant, at (202) 551-3627 or Gus Rodriguez, Accounting Branch, at (202) 551-3752 if you have questions regarding the comments. In this regard, do not hesitate to contact me at (202) 551-3679.

Sincerely,

Jim B. Rosenberg  
Senior Assistant Chief Accountant