



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 6010

April 30, 2008

Via U.S. Mail and Fax (508) 497-2726

Peter F. McAree
Senior Vice President and Chief Financial Officer
Caliper Life Sciences, Inc.
68 Elm Street
Hopkinton, Massachusetts 01748

**Re: Caliper Life Sciences, Inc.
Amendment No. 1 to Form 10-K for the fiscal year ended
December 31, 2007
Filed March 17, 2008
Form 8-K dated February 26, 2008
File No. 001-32976**

Dear Mr. McAree:

We have reviewed your filings and have the following comments. We have limited our review of your filings to those issues we have addressed in our comments. Where indicated, we think you should revise your future filings 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. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

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 on any other aspects of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Amendment No. 1 to Form 10-K for the Fiscal Year Ended December 31, 2007

Exhibits

1. Please tell us why your certifications do not contain paragraphs 4 and 5 under Rule 13A-14(A) and 15D-14(A).

Form 8-K dated February 26, 2008

2. We note that you present your non-GAAP measures in the form of Adjusted Consolidated Statements of Operations. The format may be confusing to investors as it reflects an adjusted statement of operations with several non-GAAP measures. Furthermore, it is not clear whether management uses all of these non-GAAP measures or they are shown here as a result of the presentation format. Please note that Instruction 2 to Item 2.02 of Form 8-K requires that when furnishing information under this item you must provide all the disclosures required by paragraph (e)(1)(i) of Item 10 of Regulation S-K for each non-GAAP measure presented. Please also see Question 8 of Frequently Asked Questions Regarding the Use of Non-GAAP Financial Measures dated June 13, 2003. In addition, you should explain why you believe each non-GAAP measure provides useful information to investors.
 - To eliminate investor confusion, please remove the non-GAAP adjusted consolidated statements of operations from future filings and only disclose those non-GAAP measures used by management with the appropriate reconciliations and explanations.
 - Otherwise, confirm that you will revise the presentation of non-GAAP financial information that you furnish in future filings to provide all of the disclosures required by Item 10(e)(1)(i) of Regulation S-K and FAQ 8 for each non-GAAP measure presented, and provide us with a sample of your proposed disclosure.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response 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 responses to our comments.

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 writing, 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.

You may contact Praveen Kartholy, Staff Accountant, at (202) 551-3778 or me at (202) 551-3604 if you have questions regarding these comments. In this regard, do not hesitate to contact Brian Cascio, Accounting Branch Chief, at (202) 551-3676.

Sincerely,

Kate Tillan
Assistant Chief Accountant