

June 27, 2006

Mail Stop 6010

E Kevin Hrusovsky
President and Chief Executive Officer
Caliper Life Sciences, Inc.
68 Elm Street
Hopkinton, MA 01748

**Re: Caliper Life Sciences, Inc.
Amendment No. 2 to Registration Statement on Form S-4
Filed June 23, 2006
File No. 333-132931
and Documents Incorporated By Reference
File No. 000-28229**

Dear Mr. Hrusovsky:

We have reviewed your filing and have the following 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. 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 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 your response to our prior comment 1. Based on your disclosure that you valued the warrant fraction at \$0.49 as of February 10, 2006, please tell us how you arrived at a pro forma equivalent value of a Xenogen share, as of the same date, of \$3.89. In addition, please reconcile the warrant fraction value with your disclosure on page I-21 which indicates that you valued such fraction at \$0.33.
2. We note your response to our prior comment 7. Please confirm that before you request acceleration of effectiveness you will provide all required disclosure.

Kevin Hrusovsky
Caliper Life Sciences, Inc.
June 27, 2006
Page 2

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.

You may contact Praveen Kartholy at (202) 551-3778 or in his absence, Brian Cascio at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Jay Mumford at (202) 551-3637 or me at (202) 551-3444 with any other questions.

Sincerely,

Perry Hindin
Special Counsel

cc: William T. Whelan, Esq.
Megan N. Gates, Esq.