

February 7, 2007

Mail Stop 6010

Euan S. Thomson, Ph.D.  
Chief Executive Officer  
Accuray Incorporated  
1310 Chesapeake Terrace  
Sunnyvale California 94089

**Re: Accuray Incorporated  
Amendments No. 5 to Registration Statement on Form S-1  
Filed February 7, 2007  
File No. 333-138662**

Dear Dr. Thomson:

We have the following comments to your filing. 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 supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not 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 aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Exhibit 5.1

1. We note your response to our prior comment 3. As of the date of the opinion you have not filed the underwriting agreement. Please obtain an updated opinion.
2. We note your responses to our prior comments 4 and 5. We are evaluating your responses and may have further comment.

Exhibit 5.2

3. Please obtain an opinion of counsel that specifically identifies the shares being registered by the selling stockholders in this opinion.

4. Please file as an exhibit to your registration statement the merger agreement referred to in the opinion.
5. Please obtain an opinion of counsel that identifies the bylaws and the underwriting agreement with greater specificity. For example, identify these documents by their exhibit numbers listed in the registration statement.
6. We note the limitation in clause (v) located at the bottom of page 1 and the top of page 2 and the reference to documents “submitted to [your counsel] for [its review]. With respect to the first four documents identified on page 1, please obtain a revised and updated opinion of counsel that clarifies that such documents are those documents that have been filed as exhibits to your registration statement.
7. It is inappropriate for your opinion to assume conclusions of law which are necessary requirements of the ultimate legality opinion. Please obtain an opinion of counsel that eliminates the following assumptions contained in the current legal opinion:
  - the incumbency, authority, legal right and power and legal capacity under all applicable laws and regulations of, the officers and other persons and entities’ signing each of [the documents listed in the opinion] as or on behalf of the parties;
  - the due execution of all documents submitted to [your counsel] in unexecuted form; and
  - the assumptions contained in the first full paragraph on page 2 of the opinion relating to the merger transactions.
8. The limitations contained in the last two sentences of the paragraph at the top of page 2 are inappropriate. Please obtain a revised opinion of counsel that removes this language.
9. We note that the opinion is limited to Delaware General Corporation Law. Please have your counsel confirm to us in writing that the law covered by the opinion includes not only the Delaware General Corporation Law, but also the applicable provisions of the Delaware Constitution and reported judicial decisions interpreting these laws.

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 supplemental 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.

Euan S. Thomson, Ph.D.  
Accuray Incorporated  
February 7, 2007  
Page 3

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.

You may contact Kristin Lochhead at (202) 551-3664 or in her absence, Brian Cascio at (202) 551-3605 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: Michael W. Hall, Esq.  
Laura I. Bushnell, Esq.  
Jean-Marc Corredor, Esq.