

January 11, 2007

Mail Stop 6010

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

**Re: Accuray Incorporated
Amendment No. 1 to Registration Statement on Form S-1
Filed December 22, 2006
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.

The Offering, page 7

1. We note your response to prior comment nine in our letter dated December 8, 2006. We continue to believe that the exercise of the warrants to purchase common stock immediately prior to the closing of the offering should not be assumed unless there is a firm commitment or other agreement. A warrant holder's intention to exercise the warrant would not be sufficient. Please revise.

Management's Discussion and Analysis of Financial Condition and Results of Operation, page 37

Results of Operations, page 41

Three months ended September 30, 2005 compared to three months ended September 30, 2006, page 42

Net Revenue

2. We reference the disclosure that you recognized the sale of none and six CyberKnife systems in the quarters ended September 30, 2005 and 2006, respectively. If you recognized the sale of no Cyberknife systems during the quarter ended September 30, 2005, please revise to disclose the nature of the \$3.9 million of product revenue recorded during that period. Additionally, please describe the circumstances that resulted in the installation of eight units during the quarter ended September 30, 2005, yet no revenue was recorded.

Certain Relationships and Related Transactions, page 106

3. We note your response to our prior comment 23. Please tell us where you have filed the agreements you describe in your response.
4. We note your response to our prior comment 25. To the extent material, please describe any differences between the PMTC and your standard agreements or tell us what those provisions are and why you do not believe they are material.
5. We refer to your disclosure that effective November 2006, you will assume the liabilities and obligations of the CyberKnife Society, including a consulting agreement with Dr. Adler. Please revise your filing to quantify the significant liabilities and obligations you will assume.

Principal and Selling Stockholders, page 110

6. We note your response to our prior comment 30. Please identify the individuals with beneficial ownership of the shares held by the entities described in this table. For example, please identify the individual or individuals who have voting and dispositive control over the shares held by President (BVI) International Investment Holdings Ltd. and Marubeni Corporation.

Shares Eligible for Future Sale, page 119

7. We note your response to our prior comment 31. Please explain why 5% of your holders are not going to be subject to the lockups. Please tell us how those holders were identified.

Change in Accountants, page 125

8. We note your response to prior comment 32 in our letter dated December 8, 2006. This comment will remain unresolved until you file the letter from your former accountant as an exhibit.

Notes to Consolidated Financial Statements

Note 2. Summary of Significant Accounting Policies, page F-9

Stock-Based Compensation, page F-17

9. We reference the disclosure added in response to prior comment 38 in our letter dated December 8, 2006 that you engaged an unrelated third-party appraisal firm to assist in determining the fair value of common stock. While you are not required to make reference to an independent valuation, when you do so, you must include the name of the expert and provide their written consent as an exhibit to the registration statement. See Item 601(b) of Regulation S-K.

Note 3. Balance Sheet Components, page F-25

Property and Equipment, page F-26

10. Refer to prior comment 39 in our letter dated December 8, 2006. Please revise to disclose the terms under which a customer may purchase a CyberKnife system under the shared ownership program. Additionally, disclose how you account for the revenues of systems sold under this program and the amount of revenues recorded in each period as a result of such sales.

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Accuray Incorporated
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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.

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.