



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

DIVISION OF
CORPORATION FINANCE

October 28, 2010

Via U S Mail and FAX [(408) 716-4601]

Euan S. Thomson, PhD
President and Chief Executive Officer
Accuray Incorporated
1210 Chesapeake Terrace
Sunnyvale, California 94089

**Re: Accuray Incorporated
Form 10-K for the fiscal year ended June 30, 2010
Filed on September 1, 2010
File No. 001-33301**

Dear Dr. Thomson:

We have reviewed your filings and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please response to this letter within ten business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

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Form 10-K for the fiscal year ended June 30, 2010

Item 1. Business

1. We note your disclosure that your CyberKnife system is designed to treat solid tumors anywhere in the body as an alternative to traditional (invasive) surgery. With a view towards revised disclosure in your future filings, please tell us which cases your system would not be indicated for and the reasons why.
2. We note your disclosure that the cost of your system is a factor affecting the sales of your product. In future filings, please also disclose, to the extent known, the range of costs for the facilities that are required to be constructed to house your systems and enhance your disclosure as appropriate.

Selected Financial Data, page 51

3. We see that you present a line item captioned “net income attributable to common shareholders”. Please tell us why you have included this caption since there does not appear to be any other equity ownership that would also share net income.

Management’s Discussion and Analysis

Critical Accounting Policies and Estimates, page 67

4. Please revise future filings to provide a discussion of your critical accounting policies including judgments and uncertainties affecting the application of those policies, and the likelihood that materially different amounts would be reported under different conditions or using different assumptions. Such disclosure should supplement, not duplicate, the description of accounting policies that are already disclosed in the notes to the financial statements. The disclosure should provide greater insight into the quality and variability of information regarding financial condition and operating performance. Please note that while accounting policy notes in the financial statements generally describe the method used to apply an accounting principle, the discussion in MD&A should present a company's analysis of the uncertainties involved in applying a principle at a given time or the variability that is reasonably likely to result from its application over time. Refer to FR-72 and SEC Release No. 33-8040.

Item 9A. Controls and Procedures, page 107

5. In your future filings, please disclose any changes in your internal control over financial reporting identified in connection with the evaluation of your internal control over financial reporting described in this section that occurred during your last fiscal quarter (your fourth fiscal quarter in the case of your annual report) that have materially affected, or are reasonably likely to materially affect, your internal control over financial reporting. Refer to Item 308(c) of Regulation S-K.

Item 11. Executive Compensation, page 109

6. We refer to your disclosure in the second paragraph of “Annual Cash Incentives” on page 24 of your proxy statement, which you have incorporated by reference. Please revise your future filings to explain the specific elements considered by your Compensation Committee in setting the target award opportunity percentages for each of your named executive officers and to explain why these percentages varied among the named executive officers.
7. We refer to your disclosure under “Fiscal 2010 Equity Awards” on pages 28 through 29 of your proxy statement which you have incorporated by reference. Please revise your future filings as applicable to provide substantive analysis and insight into how your Compensation Committee made its stock option grant determinations with respect to each named executive officer. Refer to Regulation S-K Item 402(b)(1)(iii) and (v). For example, please discuss and analyze how you determined the actual number of shares underlying the stock options that were awarded to your named executive officers and how and why those awards varied among the named executive officers. Please also indicate whether annual equity awards were in the approximate range of the 50th and 60th percentile; explain any material deviation from the percentile range; and specify how the committee considered elements of individual and corporate performance, total compensation package, accumulated equity holdings, the nature of the position, and retention needs in reaching its determination for each named executive officer.
8. We note that your disclosure in the “Grant of Plan-Based Awards for Fiscal 2010” on page 39 of your proxy statement, which you have incorporated by reference, does not reflect the minimum threshold amounts or percentages included in your disclosure on pages 25 and 27. Please revise future filings to reflect threshold estimated future payouts under non-equity incentive plan awards.

Exhibits

9. We note that you have requested confidential treatment for certain portions of Exhibit 10.22 to your Form 10-K. Please submit an application for confidential treatment for the information you have redacted from that exhibit and clear any comments that we may issue on that application.

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 the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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 responding to our comments, please provide a written 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.

You may contact Jeanne Bennett at (202) 551-3606, or me at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Aslynn Hogue at (202) 551-3841 or Timothy Buchmiller, Senior Attorney, at (202) 551-3635 on other comments. In this regard, please do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671 with any other questions.

Sincerely,

Brian R. Cascio
Accounting Branch Chief