

May 3, 2011

VIA EDGAR & E-MAILGregory T. Davidson
Direct: 650.849.5350
Fax: 650.849.5050
GDavidson@gibsondunn.com

Client: C 05398-00008

United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, DC 20549
Attention: Gabriel Eckstein and Amanda RavitzRe: *Accuray Incorporated*
Registration Statement on Form S-4
Filed April 7, 2011
File No. 333-173344

Ladies and Gentlemen:

On behalf of Accuray Incorporated, a Delaware corporation (the "Company"), we are submitting this letter in response to the written comments of the staff of the Securities and Exchange Commission, dated May 2, 2011 (the "Comment Letter"), with respect to the Company's Registration Statement on Form S-4 filed with the Commission on April 7, 2011 (SEC File No. 333-173344) (the "Registration Statement") in connection with the proposed merger (the "Merger") of a wholly owned subsidiary of the Company with and into TomoTherapy Incorporated ("TomoTherapy").

Set forth below are the headings and text of the comments raised in the Comment Letter, followed by the Company's responses thereto.

Litigation Related to the Merger, page 76

1. *Regarding the litigation described in this section, please disclose with greater specificity the allegations as they relate to the procedures and consideration in the merger. In addition, please provide, on a supplemental basis, copies of all the complaints. Refer to Rule 418 of the Securities Act.*

Response

Pursuant to the Commission's request, on May 2, 2011, the Company sent the Commission copies of all of the complaints, on a supplemental basis.

In further response to this comment, the disclosure on page 76 of the Registration Statement will be revised to include additional disclosure regarding the litigation related to the Merger, such that this section will read as follows:

Brussels · Century City · Dallas · Denver · Dubai · Hong Kong · London · Los Angeles · Munich · New York
Orange County · Palo Alto · Paris · San Francisco · São Paulo · Singapore · Washington, D.C.

On or about March 11, 2011, an alleged TomoTherapy shareholder, Andrew M. Storch, filed a purported class action complaint on behalf of himself and all other similarly situated shareholders of TomoTherapy in the Circuit Court of Dane County, Wisconsin, captioned *Storch v. TomoTherapy Incorporated, et al.*, Case No. 11 CV 1183. The lawsuit named as defendants TomoTherapy and the ten members of TomoTherapy's board of directors (which, together with TomoTherapy, we refer to as the "TomoTherapy defendants"). Thereafter, four more alleged TomoTherapy shareholders filed complaints in the same court on behalf of the same purported class and against the same defendants, under the following captions: *Janz v. TomoTherapy Incorporated, et al.*, No. 11 CV 1184 (filed on March 11, 2011); *Haselwander v. TomoTherapy Incorporated, et al.*, No. 11 CV 1189 (filed on March 14, 2011); *Reiter v. TomoTherapy Incorporated, et al.*, No. 11 CV 1203 (filed on March 15, 2011); and *Shuen v. TomoTherapy Incorporated, et al.*, No. 11 CV 1208 (filed on March 15, 2011). The *Reiter* and the *Shuen* complaints also named Accuray and Merger Sub as defendants (collectively, the "Accuray defendants").

All five complaints alleged, among other things, that TomoTherapy's directors breached their fiduciary duties in connection with the negotiation, consideration and approval of the Merger Agreement between TomoTherapy and Accuray. Specifically, the complaints alleged that TomoTherapy's ten directors (eight of whom are independent, outside directors) "failed to implement a process to obtain the maximum price for TomoTherapy shareholders" and "disloyally placed their own interests first and tailored the terms and conditions of the [Merger Agreement] to meet their own personal needs and objectives." The complaints also alleged that even though the merger consideration represented a 31% premium over TomoTherapy's share price as of the last trading day before the Merger Agreement was publicly announced, such a premium is "grossly inadequate." In addition, the complaints alleged that the stock portion of the merger consideration is "significantly overvalued" and that TomoTherapy's directors "failed to obtain a collar to combat any fluctuation in the stock price of Accuray that could harm TomoTherapy's shareholders." The plaintiffs also alleged that the terms of the Merger Agreement, including a termination fee, a no-solicitation provision and matching rights, and the Support Agreement were unfair and preclusive deal protection devices. However, the complaints provided no allegations as to how these transaction terms would preclude another bidder from making a superior offer. All of the complaints also alleged that TomoTherapy,

on these allegations, all of the complaints sought equitable relief, including an injunction of the merger, and costs and expenses of the litigation, including attorneys' fees.

On or about April 1, 2011, the TomoTherapy defendants filed motions to dismiss all five complaints in their entirety for failure to state a claim upon which relief can be granted. On or about April 4, 2011, and prior to ruling on the TomoTherapy defendants' motions to dismiss, all five actions were consolidated under the caption of the first filed complaint, *Storch v. TomoTherapy Incorporated, et al.*, Consolidated Case No. 11 CV 1183. On April 15, 2011, plaintiffs moved to voluntarily dismiss the Accuray defendants. On April 18, 2011, the consolidated action plaintiffs filed a consolidated class action complaint (the "Consolidated Complaint") against the TomoTherapy defendants in the same court and on behalf of the same purported class, captioned *In re TomoTherapy Incorporated Shareholder Litigation*, Lead Case No. 11-CV-1183. The Consolidated Complaint alleges identical breach of fiduciary duty claims against TomoTherapy's directors as the original five class action complaints, alleging, among other things, that TomoTherapy's directors conducted a flawed sale process "designed to yield one suitor and one suitor only," and agreed to sell TomoTherapy for inadequate consideration and on otherwise inappropriate terms. The Consolidated Complaint also alleges that this proxy statement/prospectus contains material omissions in violation of Wisconsin law, omitting, among other things, certain financial forecasts and synergies estimates, information concerning why BofA Merrill Lynch's compensation is contingent upon the closing of the transaction and what authority the Finance Committee of TomoTherapy's board of directors had and how that committee arrived at the \$4.80 demand. On or about April 25, 2011, the TomoTherapy defendants moved to dismiss the Consolidated Complaint in its entirety on the grounds that its allegations were conclusory and failed to state a claim upon which relief can be granted. A hearing on this motion has been scheduled for May 12, 2011. The TomoTherapy defendants believe that the claims asserted in the Consolidated Complaint are without merit and intend to vigorously defend against them.

Where You Can Find More Information, page 132

2. We note that you are incorporating by reference from TomoTherapy's Form 10-K. Before requesting acceleration, please file the definitive proxy statement. For guidance, refer to Securities Act Forms Compliance and Disclosure Interpretations Question 123.01 available on our website at <http://www.sec.gov/divisions/corpfin/guidance/safinterp.htm>.

Response

We note that, on April 15, 2011, TomoTherapy filed Amendment No. 1 to its Annual Report on Form 10-K for the year ended December 31, 2010, which (a) included the information that was previously omitted from its original Annual Report on Form 10-K in reliance on General Instruction G(3) to Form 10-K and (b) deleted the reference on the cover of the original Form 10-K to the incorporation by reference to portions of its definitive proxy statement. As a result, the Company will change the reference to TomoTherapy's Annual Report on Form 10-K on page 133 of the Registration Statement to a reference to TomoTherapy's "Annual Report on Form 10-K, as amended."

* * *

Please direct any questions or comments regarding this letter to the undersigned at (650) 849-5350.

Very truly yours,

/s/ Gregory T. Davidson

Gregory T. Davidson

GTD/jt

cc: Euan S. Thomson, Ph. D.
Accuray Incorporated