



DIVISION OF
CORPORATION FINANCE

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

June 28, 2012

Via E-mail

Carl W. Hull
Chairman and Chief Executive Officer
Gen-Probe Incorporated
10210 Genetic Center Drive
San Diego, CA 92121

**Re: Gen-Probe Incorporated
Amendment No. 1 to Preliminary Proxy Statement on Schedule 14A
Amended June 20, 2012
File No. 000-49834**

Dear Mr. Hull:

We have limited our review of your filing to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Background of the Merger, page 22

1. We note your revised disclosure on page 24 in response to prior comment 6; however, your revised disclosure does not explain why the board rejected the "other strategic options." Please revise accordingly.
2. We note that on April 6, 2012 you executed confidentiality agreements with Hologic to enable further discussion and facilitate information exchange, based upon the March 30 Hologic Proposal. Please revise further to discuss the process by which the board determined to move forward with Hologic due diligence based upon the March 30 offer, in light of its refusal to do so in connection with Party D's May 9 indication of interest.

Opinion of Gen-Probe's Financial Advisor, page 32

3. We refer to prior comment 8 and your disclosure on page 25 indicating that Morgan Stanley reviewed and analyzed the financial terms of the March 30 proposal during a telephonic meeting on April 5, 2012. Please provide us a summary of this oral presentation as well as any other oral presentations where Morgan Stanley discussed and analyzed financial terms with board members.

4. We note your response to prior comment 9 which indicates that there have been developments in your business since April 29, 2012. Please revise your summary and background sections to discuss any material developments in your business since April 29, 2012, and describe what consideration, if any, the board has given to how these developments impact the board's recommendation to shareholders.

Prospective Financial Information, page 39

5. We refer to page 17 of the April 27, 2012 Board of Directors Presentation which you provided in response to prior comment 8. Please reconcile the figures in the bottom left table on page 17 to the Adjusted EBITDA figures disclosed on page 40.

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 the 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.

Please contact Joseph McCann at (202) 551-6262 or me at (202) 551-3528 with any questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz
Assistant Director

cc (via email): Brian J. McCarthy, Esq. – Skadden, Arps, Slate, Meagher & Flom LLP