Via Facsimile and U.S. Mail
Mail Stop 6010

May 11, 2007

Herm Rosenman
Vice President – Finance and Chief Financial Officer
Gen-Probe Incorporated
10210 Genetic Center Drive
San Diego, CA 92121-4362

Re: Gen-Probe Incorporated
Form 10-K for Fiscal Year Ended December 31, 2005
File No. 001-31279

Dear Mr. Rosenman:

We have reviewed your March 28, 2007 response to our oral comment of March l6, 2007 and have the following additional comment. In our comment, we ask you to provide us with information so we may better understand your disclosure. Please be as detailed as necessary in your explanation. After reviewing this information, we may 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.

Form 10-K – December 31, 2005

Consolidated Financial Statements, page F-1

Notes to Consolidated Financial Statements, page F-7

4. Intangible assets by asset class and related accumulated amortization, page F-19

1. Refer to your response to our oral comment issued on March 16, 2007. We have the following follow-up comments regarding the capitalization of the $20 million manufacturing access fee paid to Roche in May 2005:

a) Please provide us a more robust discussion of the key elements of the Roche Supply and Purchase Agreement signed February 2005. Include a discussion of specifically what the $20 million fee is supposed to compensate Roche for in terms of services they are to provide and how, if at all, this fee effects the cost of product Gen-Probe will purchase from Roche. Disclose if the fee is refundable and whether Gen-Probe can sell the rights under the fee arrangement to a third party. Discuss more specifically the nature, purpose, accounting and triggering events for the $10 million payment due no later than December 1, 2008 and how it relates, if at all, to the $20 million Fee. Describe the nature, purpose and accounting for the "transfer fees" and quantify their financial impact on future financial statements. Further describe how they relate, if at all, to the $20 million fee.

b) Describe how you concluded at May 2005 that the commercialization of "HPV" diagnostic test was both "probable" and "imminent." In doing so, please discuss how this conclusion was consistent with your disclosure that you do not expect to commercialize the HPV tests until "the first half of 2008," and your disclosure that additional R&D appeared necessary in the form of reagent stability studies, specimen stability studies, planning for clinical studies and presumably clinical studies.

c) Please clarify specifically, at May 2005, what stage of regulatory review the HPV tests were in for eventual approval to commercialize the tests in Europe and in the United States. Specifically tell us what supplemental regulatory approvals were necessary to begin commercialization for both territories, any contingencies needed to be resolved, the risks affecting the probability of obtaining European and USFDA approval and provide us a "timeline" for the expected approval process as you knew it to be in May 2005. Specifically state the point during the USFDA and European approval process you determine that a probable future benefit exists.

d) Describe the specific nature of any safety and efficacy, manufacturing, and marketing or labeling issues outstanding at May 2005, and why the Company did not believe those issues affected your conclusions on the probable future benefit of the $20 million fee.

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Please respond to this comment within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comment and provide the requested information. Detailed letters greatly facilitate our review. You should furnish the letter to us via EDGAR under the form type label CORRESP.

You may contact James Peklenk, Staff Accountant, at (202) 551-3661, or Jim Atkinson, Accounting Branch Chief, at (202) 551-3674 if you have questions regarding the comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief
Accountant