

**HARVARD BIOSCIENCE, INC.**

84 October Hill Road  
Holliston, Massachusetts 01746

May 25, 2006

**Via EDGAR**

Mr. Eric Atallah  
Staff Accountant  
Securities and Exchange Commission  
100 F. Street, N. E., Mail Stop 6010  
Washington, D.C. 20549-0306

**Re: Harvard Bioscience, Inc.  
Form 10-K for the fiscal year ended December 31, 2005  
Form 8-K filed March 2, 2006  
File No. 0-31923**

Dear Mr. Atallah:

This letter is submitted on behalf of Harvard Bioscience, Inc. (the "Company") in response to the comments of the staff of the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "Commission") with respect to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2005 filed on March 16, 2006 (the "Form 10-K") and with respect to the Company's Current Report on Form 8-K filed March 2, 2006 (the "Form 8-K"), as set forth in the letter dated April 10, 2006 from the Staff to Mr. Bryce Chicoyne (the "Comment Letter").

For reference purposes, the text of the Comment Letter has been reproduced herein with responses below each numbered comment. For your convenience, we have italicized the reproduced Staff comments from the Comment Letter and we have bolded the headings of our responses thereto.

In connection with the Company's response to the Comment Letter, the Company acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in its filings with the Commissioner;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the Company's filings with the Commissioner; 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.

Form 10-K for the year ended December 31, 2005

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 25

Liquidity and Capital Resources, page 30

*Comment No. 1:*

*Please tell us and revise future filings to describe how cash flows from discontinued operations are reflected in your cash flows statements. In addition, revise future filings to describe how the absence of cash flows or absence of negative cash flows, related to the discontinued operations will impact your future liquidity and capital resources.*

**Response to Comment No. 1:**

The Company has elected to combine the cash flows from both continuing and discontinued operations within each category, in accordance with footnote 10 of Statement of Financial Accounting Standard (SFAS) No. 95, *Statement of Cash Flows*. Accordingly, the Company will modify the introduction to its discussion of liquidity and capital resources in future filings to discuss how the Company has reflected the cash flows from discontinued operations in our statement of cash flows. In addition, the Company will describe how the absence of cash flows or absence of negative cash flows will impact the Company's future liquidity and capital resources, as appropriate.

Item 9A. Controls and Procedures, page 38

*Comment No. 2:*

*We note your statement that “. . . any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. . .” Please revise future filings to state clearly, if true, that your disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives and that your principal executive officer and principal financial officer concluded that your disclosure controls and procedures are effective at that reasonable assurance level. In the alternative, please remove the reference to the level of assurance of your disclosure controls and procedures in future filings. Please refer to Section II.F.4 of Management's Reports on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act*

*Periodic Reports, SEC Release No. 33-8238, available on our website at <http://www.sec.gov/rules/final/33-8238.htm>.*

**Response to Comment No. 2:**

As requested by the Staff's comment, the Company intends to include the following disclosure, if true, relating to the conclusions of the Company's principal executive and principal financial officers regarding the effectiveness of the Company's disclosure controls and procedures in future filings with the Commission requiring such disclosure.

"As required by Rules 13a-15 and 15d-15 under the Securities Exchange Act of 1934, we have evaluated, with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. Our disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and our management necessarily was required to apply its judgment in evaluating and implementing our disclosure controls and procedures. Based upon the evaluation described above, our Chief Executive Officer and Chief Financial Officer have concluded that they believe that our disclosure controls and procedures were effective, as of the end of the period covered by this report, in providing reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms."

Note 7 - Discontinued Operations, page F-17

*Comment No. 3:*

*Please tell us and disclose in future filings, the facts and circumstances leading to the \$11.5 million long lived asset impairment and \$17.2 million goodwill impairment, including all significant valuation assumptions. The discussion should not merely state that there was a decrease in revenues and operating profit, but should discuss the reasons why you believe those future cash flows are decreasing. Also please discuss the expected manner and timing of the disposal as required by paragraph 47(a) of SFAS 144.*

**Response to Comment No. 3:**

During the second and fourth quarters of 2005, the Company, with the assistance of third party independent appraisers, used a combination of income and market valuation approaches to develop indications of value for its assets, asset groups and reporting units within the Capital Equipment Business segment. Although there are many estimates and assumptions included in the valuation approaches used by the Company and its third party independent appraisers, such as expected gross profit margins, amount of operating expenses, capital expenditures, assumed tax rate, discount rates, and exit multiples, actual and expected revenue was the most significant assumption impacting the valuations. Accordingly, the reduction in the level of actual and expected revenues described below was the primary cause of the impairment charges recorded by the Company during 2005.

Prior to being classified as a discontinued operation, during the second quarter for 2005, the asset groups that comprise the Capital Equipment Business segment experienced a significant decrease in revenues and operating profit margins compared to the Company's internal forecasts. The Company believed the decrease in revenues was caused by a general market decrease in demand for capital equipment, excess capacity of certain genomics equipment in the market place, and the failure of markets for new applications for certain products to develop as previously anticipated. The Company believed that these developments would continue to negatively impact the Capital Equipment Business segment for the foreseeable future and, accordingly, that future revenues and operating profit margins in this segment would be significantly less than the Company's prior estimates. These facts and circumstances led to the long-lived asset and goodwill impairment charges recorded during the second quarter of 2005.

Subsequent to the Company announcing its plan to sell the Capital Equipment Business segment, and specifically during the fourth quarter of 2005, certain product lines experienced further declines in revenues. Due to the relative high price and nature of the products sold by Capital Equipment Business segment the Company believed that certain customers, particularly distributors, were not promoting and purchasing certain products due to the uncertain future of the business. The Company believed that this development would continue to negatively impact the Capital Equipment Business segment for the foreseeable future and, accordingly, that future revenues and operating profit margins would be less than the Company's prior estimates. These facts and circumstances led to the long-lived asset and goodwill impairment charges recorded during the fourth quarter of 2005.

The Company advises the staff that it currently anticipates it will sell the Capital Equipment Business segment in a single transaction prior to the end of the third quarter of 2006.

As requested by the Staff's comment, the Company expects to include the following disclosure in its Form 10-Q for the quarterly period ended June 30, 2006 with the Commission requiring such disclosure.

"In July 2005, we announced plans to divest our Capital Equipment Business segment. The decision to divest this business was based on the fact that market conditions for the Capital Equipment Business segment have been such that this business has not met our expectations and the decision to focus our resources on our Apparatus and Instrumentation Business segment. As a result, we began reporting our Capital Equipment Business segment as a discontinued operation in the third quarter of 2005. The Company currently anticipates it will sell the Capital Equipment Business segment in a single transaction prior to the end of the third quarter of 2006.

Prior to being classified as a discontinued operation, during the second quarter of 2005, the asset groups that comprise the Company's Capital Equipment Business segment experienced a significant decrease in revenues and operating profit margins. The Company believed the decrease in revenues was caused by a general market decrease in demand for capital equipment, excess capacity of certain genomics equipment in the market place, and the failure of markets for new applications for certain products to develop as previously anticipated. These factors led the Company to revise its expectations of future revenues and operating profit margins for the Capital Equipment Business segment. As a result, with the assistance of third party independent appraisers, the Company re-evaluated the long-lived assets associated with these asset groups in accordance with SFAS No. 144 and determined that certain intangible assets within these asset groups were impaired as of June 30, 2005. The Company used an income approach to determine the fair values of the long-lived assets tested for impairment and recorded abandonment and impairment charges within the Capital Equipment Business segment totaling approximately \$8.1 million for long-lived assets during the second quarter of 2005. These abandonment and impairment charges have been classified within discontinued operations for the six months ended June 30, 2005.

Also, as a result of the factors described above, in accordance with SFAS No. 142, the Company, with the assistance of third party independent appraisers, re-evaluated the goodwill associated with the Genomic Solutions and Union Biometrica reporting units for impairment as of June 30, 2005. As a result of this goodwill impairment testing, the Company recorded impairment charges within the Capital Equipment Business segment of approximately \$9.3 million for goodwill during the second quarter of 2005. The Company used a combination of an income approach and a market approach to determine the fair value of its Genomic Solutions and Union Biometrica reporting units. These impairment charges have been classified within discontinued operations for the six months ended June 30, 2005.

During the fourth quarter of 2005, certain product lines in the Capital Equipment Business segment did not meet the Company's revenue forecasts and expectations. The Company believes that the further decline in revenues was due to the relative high price and nature of the products sold by Capital Equipment Business segment which customers, particularly distributors, may not be promoting and purchasing products due to the uncertain future of the business. This led to a further reduction in the Company's expectation of future revenues in the Capital Equipment Business segment. As a result, the Company re-evaluated the goodwill included in this segment in accordance with SFAS No. 142, as well as the fair value of the disposal group in accordance with SFAS No. 144. As a result, an additional goodwill impairment charge of approximately \$7.9 million and a write-down of long-lived assets of approximately \$3.4 million were recorded during the fourth quarter of 2005. The Company used a combination of an income and market approaches to determine the fair value of the disposal group."

Form 8-K filed March 2, 2006

*Comment No. 4:*

*We see that you present your non-GAAP measures and reconciliation in the form of a non-GAAP statement of income. This format may be confusing to investors as it also reflects several non-GAAP measures, including non GAAP amortization of intangible assets, non-GAAP total operating expenses, non-GAAP operating income, non-GAAP income from continuing operations before income taxes, non-GAAP income taxes, non-GAAP discontinued operations, net of tax, non-GAAP net income and non-GAAP basic earnings per share. In fact, it appears that management does not use these non-GAAP measures but they are shown here as a result of the presentation format. Please note that Instruction 2 to Item 2.02 of Form 8-K requires that when furnishing information under this item you must provide all the disclosures required by paragraph (e)(1)(i) of Item 10 of Regulation S-K, including a reconciliation to the directly comparable GAAP measure for each non-GAAP measure presented and explain why you believe the measures provide useful information to investors.*

- To eliminate investor confusion, please remove the non-GAAP statement of income from all future filings and instead disclose only those non-GAAP measures used by management that you wish to highlight for investors, with the appropriate reconciliations.*
- Please note that in the event that your Form 8-K is incorporated by reference into a 33 Act registration statement, we may have additional questions relating to the appropriateness of this information being included in a document filed with, and not just furnished to, the Commission. At that time, we may request an amendment to the Form 8-K.*

**Response to Comment No. 4:**

The Company historically has presented an adjusted statement of operations, including a number of adjusted line items, in its earnings releases because the Company believes that it provides useful information to investors. The Company believes that, in the Form 8-K, it satisfied the disclosure requirements of Instruction 2 to Item 2.02 by incorporating the full text of the press release filed as Exhibit 99.1 to the Form 8-K into Item 2.02 (including the section under the heading "Use of Non-GAAP Financial Information" and Exhibit 3 thereto which includes a presentation, with equal or greater prominence, of the most directly comparable financial measures calculated in accordance with GAAP and a tabular reconciliation thereto). As mentioned in the text of the press release, the non-GAAP financial measures included in the adjusted statement of operations approximates information used by the Company's management to internally evaluate the operating results of the Company. Additionally, as mentioned in the text of the press release, the Company believes that the presentation of a non-GAAP adjusted

consolidated statement of operations, including a number of adjusted line items, provides investors with a clearer understanding of the full effect of the adjustments that the Company makes to its GAAP net income in order to derive its non-GAAP adjusted income and from continuing operations and earnings per diluted share. However, in response to the comment by the Staff, the Company will remove the non-GAAP statement of operations from all future filings that it makes with the Commission and limit its disclosure of non-GAAP financial measures to those used by management that the Company wishes to highlight for investors. The Company will continue to include all required reconciliations of the differences between the non-GAAP financial measures it discloses in its filings with the most directly comparable GAAP financial measures.

The Company notes that in the event the Form 8-K is incorporated by reference into a registration statement filed under the Securities Act of 1933, as amended, the Staff may have additional questions relating to the appropriateness of this information being included in a document filed with, and not just furnished to, the Commission. The Company also notes that at that time the Commission may request an amendment to the Form 8-K.

\* \* \*

If you have any questions regarding this letter or require further additional information, please do not hesitate to contact me at 508-893-3135.

Sincerely,

/s/ Bryce Chicoyne

Bryce Chicoyne  
Chief Financial Officer