SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-Q

(Mark One)

☒ Quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

For the quarterly period ended March 31, 2003

or

o Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

For the transition period from to

Commission File Number 000-31923

HARVARD BIOSCIENCE, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**04-3306140**
(State or other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
84 October Hill Road, Holliston, MA	**01746**
(Address of Principal Executive Offices)	(Zip Code)

(508) 893 - 8999
(Registrant's Telephone Number, Including Area Code)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No o.

Indicate by check mark whether the registrant is an accelerated filer (as defined in Exchange Act Rule 12b-2).

Yes ☒ No o.

APPLICABLE ONLY TO CORPORATE ISSUERS:

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

As of May 9, 2003
Common Stock Outstanding 30,040,931

HARVARD BIOSCIENCE, INC.
Form 10-Q
For the Quarter Ended March 31, 2003

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PART I. FINANCIAL INFORMATION

Item 1. Consolidated Financial Statements.

HARVARD BIOSCIENCE, INC.
CONSOLIDATED BALANCE SHEETS
(unaudited)
(in thousands, except share and per share amounts)

	3/31/03	12/31/02
Current assets:		
Cash and cash equivalents	$ 9,321	$ 15,313
Trade accounts receivable, net	16,155	13,917
Other receivables and other assets	261	478
Inventories	18,239	15,467
Catalog costs	141	283
Prepaid expenses	1,903	1,883
Deferred tax assets	1,354	1,073
Total current assets	47,374	48,414
Property, plant and equipment, net	6,486	5,918
Other assets:		
Deferred tax asset	648	669
Goodwill and other indefinite lived intangibles	34,066	31,140
Amortizable intangible assets	25,969	20,206
Other assets	1,112	1,237
Total other assets	61,795	53,252
Total assets	$ 115,655	$ 107,584
Current liabilities:		
Note Payable	$ 6,000	—
Current installments of long-term debt	695	$ 699
Trade accounts payable	5,860	5,525
Deferred revenue	2,477	1,459
Accrued income taxes payable	1,553	1,151
Accrued expenses	7,215	7,362
Other liabilities	232	403
Total current liabilities	24,032	16,599
Long-term debt, less current installments	348	400
Deferred income tax liabilities	865	930
Other liabilities	1,292	1,274
Total long-term liabilities	2,505	2,604
Total liabilities	26,537	19,203
Stockholders' equity:		
Common stock, par value $.01 per share, 80,000,000 shares authorized; 34,698,209 and 34,692,050 shares issued and 30,037,425 and 30,031,266 shares outstanding at March 31, 2003 and December 31, 2002, respectively	347	347
Additional paid-in-capital	171,797	171,622
Accumulated other comprehensive income	704	894
Note receivable from officer	(987)	(963)

Accumulated deficit	(82,075)	(82,851)
Treasury stock, 4,660,784 common shares, at cost	(668)	(668)
Total stockholders' equity	89,118	88,381
Total liabilities and stockholders' equity	$ 115,655	$ 107,584

See accompanying notes to unaudited consolidated financial statements.

HARVARD BIOSCIENCE, INC.
CONSOLIDATED STATEMENTS OF INCOME
(unaudited)
(in thousands, except per share amounts)

	Three Months Ended March 31,	
	2003	2002
Product revenues	$ 19,226	$ 11,652
Research revenues	247	311
Total revenues	19,473	11,963
Cost and expenses:		
Cost of product revenues	9,635	5,748
General and administrative expense	2,825	1,898
Sales and marketing expense	3,600	1,488
Research and development expense	1,420	1,017
Stock compensation expense	147	325
Amortization of intangibles	625	305
Operating income	1,221	1,182
Other income (expense):		
Foreign currency gain (loss)	114	(44)
Interest expense	(39)	(5)
Interest income	66	99
Other.	(32)	(10)
Other income, net	109	40
Income before income taxes	1,330	1,222
Income taxes	554	449
Net income	$ 776	$ 773
Net income per share:		
Basic and diluted	$ 0.03	$ 0.03
Weighted average common shares:		
Basic	29,892	26,456
Diluted	30,137	27,124

See accompanying notes to unaudited consolidated financial statements.

HARVARD BIOSCIENCE, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)
(in thousands)

	Three Months Ended March 31,	
	2003	2002
Cash flows from operating activities:		
Net income	$ 776	$ 773
Adjustments to reconcile net income to net cash provided by operating activities:		
Stock compensation expense.	147	325
Depreciation	503	224
Amortization of catalog costs	147	62
Amortization of other intangibles	625	305
Deferred income taxes	(245)	(374)
Changes in operating assets and liabilities, net of effects of business acquisitions:		
Accounts receivable	(1,128)	(931)

Other receivables	47	629
Inventories	280	(91)
Prepaid expenses and other assets	9	(416)
Other assets	240	(193)
Trade accounts payable	(213)	170
Accrued income taxes payable	389	396
Deferred revenue	(102)	(37)
Accrued expenses	(648)	(653)
Other liabilities	(150)	157
Net cash provided by operating activities	677	346
Cash flows from investing activities:		
Additions to property, plant and equipment	(323)	(343)
Additions to catalog costs	(5)	(97)
Acquisition of businesses, net of cash acquired	(12,344)	(5)
Net cash used in investing activities	(12,672)	(445)
Cash flows from financing activities:		
Repayment of notes receivable from officers	—	886
Proceeds from note payable	6,000	—
Repayments of long-term debt	(40)	(16)
Net proceeds from issuance of common stock	6	71
Net cash provided by financing activities	5,966	941
Effect of exchange rate changes on cash and cash equivalents	37	(189)
Decrease (Increase) in cash and cash equivalents..	(5,992)	653
Cash and cash equivalents at beginning of period	15,313	29,386
Cash and cash equivalents at end of period..	$ 9,321	$ 30,039
Supplemental disclosures of cash flow information:		
Cash paid for interest	$ 39	$ 5
Cash paid for income taxes	$ 263	$ 138

See accompanying notes to unaudited consolidated financial statements.

HARVARD BIOSCIENCE, INC.

Notes to Unaudited Consolidated Financial Statements

1. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation

The unaudited consolidated financial statements of the Company and its wholly-owned subsidiaries as of March 31, 2003, and for the three month periods ended March 31, 2003 and March 31, 2002, have been prepared in accordance with accounting principles generally accepted in the United States of America and include all adjustments which, in the opinion of management, are necessary to present fairly the results of operations for the periods then ended. All such adjustments are of a normal recurring nature. These unaudited consolidated financial statements should be read in conjunction with the consolidated financial statements for the year ended December 31, 2002 and the notes thereto included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC").

The results of operations for any interim period are not necessarily indicative of the results of operations for a full fiscal year.

Summary of Significant Accounting Policies

The accounting policies underlying the accompanying unaudited consolidated financial statements are those set forth in Note 2 to the consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2002, filed with the SEC.

2. Recently Issued Accounting Pronouncements

In June 2001, Statement of Financial Accounting Standards ("SFAS") No. 143, *Accounting for Asset Retirement Obligations* was issued. SFAS No. 143 applies to legal obligations associated with the retirement of certain tangible long-lived assets. This Statement is effective for fiscal years beginning after June 15, 2002. The Company adopted SFAS No. 143 on January 1, 2003. The adoption of this Statement did not have a material impact on the Company's consolidated results of operations or financial position.

In May 2002, SFAS No. 145, *Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections*, was issued. SFAS No. 145 which is effective for fiscal years beginning after May 15, 2002 rescinds SFAS No. 4, *Reporting Gains and Losses from Extinguishment of Debt*, SFAS No. 64, *Extinguishments of Debt Made to Satisfy Sinking-Fund Requirements*, and SFAS No. 44, *Accounting for Intangible Assets of Motor Carriers*. This Statement also amends SFAS No. 13, *Accounting for Leases*, to eliminate an inconsistency between the required accounting for sale-leaseback transactions. This Statement also amends other existing authoritative pronouncements to make various technical corrections, clarify meanings, or describe their applicability under changed conditions. The Company adopted SFAS No. 145 on January 1, 2003. The adoption of SFAS No. 145 did not have a material impact on the Company's consolidated results of operations or financial position.

In July 2002, SFAS No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*, was issued. SFAS No. 146 is based on the fundamental principle that a liability for a cost associated with an exit or disposal activity should be recorded when it (1) is incurred, and (2) can be measured at fair value. SFAS No. 146 is effective for exit and disposal activities initiated after December 31, 2002. The Company adopted SFAS No. 146 on January 1, 2003. The adoption of this Statement did not have a material impact on the Company's consolidated results of operations or financial position.

In November 2002, the Financial Accounting Standards Board ("FASB") issued Interpretation No. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness to Others, an interpretation of FASB Statements No. 5, 57 and 107 and a rescission of FASB Interpretation No. 34*. This Interpretation elaborates on the disclosures to be made by a guarantor in its interim and annual financial statements about its obligations under guarantees issued. The Interpretation also clarifies that a guarantor is required to recognize, at inception of a guarantee, a liability for the fair value of the obligation undertaken. The initial recognition and measurement provisions of the Interpretation are applicable to guarantees issued or modified after December 31, 2002. The disclosure requirements are effective for financial statements of interim and annual periods ending after December 31, 2002. The

Company adopted this Interpretation on January 1, 2003 and there was no material impact on the Company's consolidated results of operations or financial position.

In December 2002, the FASB issued SFAS No. 148, *Accounting for Stock-Based Compensation – Transition and Disclosure, an amendment of FASB Statement No. 123*. This Statement amends FASB Statement No. 123, *Accounting for Stock-Based Compensation*, to provide alternative methods of transition for a voluntary change to the fair value method of accounting for stock-based employee compensation. In addition, this Statement amends the disclosure requirements of Statement No. 123 to require prominent disclosures in both annual and interim financial statements. Certain of the disclosure modifications are required for fiscal years ending after December 15, 2002 and are included in the notes to the unaudited consolidated financial statements.

In January 2003, the FASB issued Interpretation No. 46, *Consolidation of Variable Interest Entities, an interpretation of ARB No. 51*. This Interpretation addresses the consolidation by business enterprises of variable interest entities as defined in the Interpretation. The Interpretation applies immediately to variable interests in variable interest entities created after January 31, 2003, and to variable interests in variable interest entities obtained after January 31, 2003. For public enterprises with a variable interest in a variable interest entity created before February 1, 2003, the Interpretation applies to that enterprise no later than the beginning of the first interim or annual reporting period beginning after June 15, 2003. The application of this Interpretation is not expected to have a material impact on the Company's consolidated results of operations or financial position.

In November, 2002, the Emerging Issues Task Force ("EITF") reached a consensus on Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables*. EITF Issue No. 00-21 addresses the accounting, by a vendor, for contractual arrangements in which multiple revenue-generating activities will be performed by the vendor. The Issue addresses when and, if so, how an arrangement involving multiple deliverables should be divided into separate units of accounting. The Issue also addresses how the arrangement consideration should be measured and allocated to the separate units of accounting in the arrangement. This Issue otherwise does not change applicable revenue recognition criteria. Companies are required to adopt this consensus for fiscal periods beginning after June 15, 2003. Companies may apply this consensus prospectively to new arrangements initiated after the date of adoption or as a cumulative catch adjustment. Early adoption of the consensus is permitted. We are currently evaluating the effects of adopting the provisions of the EITF's consensus on this Issue.

3. Acquisitions

On January 31, 2003, the Company acquired substantially all the assets of the BTX division of Genetronics Biomedical Corporation for $4.1 million in cash (including $0.4 million in acquisition related costs). The results of operations have been included in the consolidated financial statements since the date of acquisition. BTX designs, develops, manufactures and distributes electroporation products. The Company has not finalized the allocation of the purchase price as of March 31, 2003. An estimation of the allocation was prepared and included as part of these consolidated financial statements. The estimated allocation of the purchase price is as follows: $2.7 million to existing technology, current assets of $1.4 million, $0.1 million to property, plant and equipment and liabilities assumed of $0.1 million. The valuation and allocation of purchase price for BTX has been estimated as the valuation has not yet been completed. We anticipate the valuation to be complete during the second quarter of 2003.

On March 12, 2003, the Company, through its Genomic Solutions subsidiary, acquired substantially all of the assets of Genomic Instrumentation Services, d/b/a/ GeneMachines for $8.6 million in cash (including $0.3 million in acquisition related expenses). The acquisition was partially funded by a $6.0 million bridge loan entered into on March 12, 2003, with Brown Brothers Harriman and Co. The bridge loan is in the form of a demand promissory note which bears an annual interest rate of 4.25%. The results of operations have been included in the consolidated financial statements since the date of acquisition. GeneMachines designs, develops, manufactures and distributes high throughput instrumentation for DNA and protein microarray production, nucleic acid sample preparation and DNA synthesis. It is anticipated that the acquisition of GeneMachines will strengthen the Company's genomic product offering and when coupled with genomic product line of the Company's Genomic Solutions subsidiary, will provide a complementary set of products in the DNA microarray systems and instrumentation market.

An estimation of the allocation of the aggregate purchase price of $8.6 million was prepared and included as part of these consolidated financial statements as follows:

(in thousands)		
Current assets	$	2,989
Property, plant and equipment		688
Long-term assets		45
Goodwill and other indefinite lived intangibles		2,974
Amortizable Intangible assets		3,719
Total assets acquired	$	10,415

Current liabilities	(1,864)
Total liabilities assumed	(1,864)
Net assets acquired	$ 8,551

The $3.7 million of acquired intangible assets was allocated to existing products and technology. In the first quarter of 2003, $151,000 of fair value adjustments related to GeneMachines's backlog and inventory was expensed through cost of goods sold for orders that were on backlog at the date of acquisition but have since been sold.

4. Goodwill and Other Intangible Assets

On January 1, 2002, the Company adopted SFAS No. 142, *"Goodwill and Other Intangible Assets."* As a result of the adoption, goodwill and other indefinite-lived intangible assets are no longer being amortized, but are subject to annual impairment reviews, or more frequently, if events or circumstances indicate there may be an impairment.

On December 31, 2002, the Company completed its goodwill impairment test and concluded there was no impairment.

Goodwill and intangible assets consist of the following:

	March 31, 2003		December 31, 2002	
(in thousands)	**Gross Carrying Value**	**Accumulated Amortization**	**Gross Carrying Value**	**Accumulated Amortization**
Amortizable intangible assets:				
Existing technology	$ 27,174	$ 2,618	$ 20,785	$ 2,020
Tradename	1,702	297	1,702	269
Patents	9	1	9	1
Total Amortizable Intangible Assets	$ 28,885	$ 2,916	$ 22,496	$ 2,290
Unamortizable intangible assets:				
Goodwill and other indefinite lived intangibles	$ 34,066	$ —	$ 31,140	$ —
Total Goodwill and Intangible Assets	$ 62,951	$ 2,916	$ 53,635	$ 2,290

The Company acquired amortizable intangible assets estimated at approximately $2.7 million in connection with the acquisition of BTX on January 31, 2003 and intangible assets of approximately $6.7 million in connection with the acquisition of GeneMachines on March 12, 2003, consisting of approximately $3.7 million of amortizable assets and $2.8 million of goodwill (including approximately $0.3 million of acquisition related expenses). Intangible asset amortization expense was $625,000 and $305,000 for the three months ended March 31, 2003 and 2002, respectively. Amortization expense of existing amortizable intangible assets is estimated to be $2.8 million for the year ending December 31, 2003 and $2.9 million for each of the years ending December 31, 2004, 2005, 2006, 2007 and 2008.

5. Stock Based Compensation

The Company applies the intrinsic-value-based method of accounting prescribed by Accounting Principles Board (APB) Opinion No. 25, *Accounting for Stock Issued to Employees*, and related interpretations including Financial Accounting Standards Board ("FASB") Interpretation No. 44, *Accounting for Certain Transactions involving Stock Compensation, an interpretation of APB Opinion No. 25*, issued in March 2000, to account for its fixed-plan stock options. Under this method, compensation expense is recorded, using the graded method, on the date of grant only if the current market price of the underlying stock exceeds the exercise price and the number of stock options are fixed. SFAS No. 148, *Accounting for Stock-Based Compensation Transition and Disclosure*, an amendment of FASB Statement No. 123, provides alternative methods of transition for a voluntary change to the fair-value-based method of accounting for stock-based employee compensation plans under SFAS No. 123, *Accounting for Stock Based Compensation*, and amends the disclosure requirements of SFAS No. 123. As allowed by SFAS No. 148 and 123, the

Company has elected to continue to apply the intrinsic-value-based method of accounting described above, and has adopted only the disclosure requirements of SFAS No. 148.

The following table illustrates the effect on net income if the fair-value-based method had been applied to all outstanding awards in each period.

	Three months ended	
(in thousands, except per share data)	**March 31, 2003**	**March 31, 2002**
Net income available to common stockholders, as reported	$ 776	$ 773
Add: stock-based employee compensation expense included in reported net income, net of tax	141	314
Deduct: total stock-based employee compensation expense determined under fair-value based method for all awards, net of tax	(974)	(1,182)
Pro forma net loss	$ (57)	$ (95)
Basic net income per share	$ 0.03	$ 0.03
Pro forma basic net loss per share	$ 0.00	$ 0.00
Diluted net income per share	$ 0.03	$ 0.03
Pro forma diluted net loss per share	$ 0.00	$ 0.00

The fair value of each option grant for the Company's Plans is estimated on the date of the grant using the Black-Scholes pricing model, with the following weighted average assumptions used for grants in 2003 and 2002.

	Three Months Ended March 31	
	2003	**2002**
Risk free interest rates	%	%

	3.25	4.0
Expected option lives	3 years	3 years
Expected dividend yields	0%	0%
Expected volatility	91.40%	91.40%

6. Income Per Share

Basic income per share is based upon net income divided by the number of weighted average common shares outstanding during the period. The calculation of diluted net income per share assumes conversion of stock options into common stock using the treasury method. The weighted average number of shares used to compute basic and diluted earnings per share consist of the following:

	Three Months Ended March 31,	
	2003	2002
	(in thousands)	
Weighted average common shares outstanding	29,892	26,456
Weighted average common equivalent shares due to stock options	245	668
	30,137	27,124

7. Inventories

Inventories consist of the following:

	March 31, 2003	December 31, 2002
	(in thousands)	
Finished goods	$ 7,084	$ 6,057
Work in process	2,446	1,879
Raw materials	8,709	7,531
	$ 18,239	$ 15,467

8. Accounts Receivable

Accounts receivable consists of the following:

	March 31, 2003	December 31, 2002
	(in thousands)	
Trade accounts receivable	$ 16,355	$ 14,061
Allowance for doubtful accounts	(200)	(144)
	$ 16,155	$ 13,917

9. Comprehensive Income

Accumulated other comprehensive income, a component of stockholders' equity, consists solely of foreign currency translation adjustments as of March 31, 2002. As of March 31, 2003, accumulated other comprehensive income consists of foreign currency translation adjustments and a minimum additional pension liability. The components of total comprehensive income were as follows:

	Three Months Ended March 31,	
	2003	2002
	(in thousands)	
Net income	$ 776	$ 773
Foreign currency translation adjustment	(190)	(418)
Comprehensive income	$ 586	$ 355

10. Stockholders' Equity

In September 2000, Mr. Graziano, the Company's Chief Executive Officer, and Mr. Green, the Company's President, each exercised options to purchase 740,228 shares of the Company's common stock. Each of these officers paid substantially all of the exercise price for these shares by issuing promissory notes to the Company. The aggregate loan to Mr. Graziano was $789,000 and to Mr. Green was $789,000 pursuant to these promissory notes. In February 2002, Mr. Green satisfied his promissory notes in full by payment to the Company of the principal amount of the notes and accrued interest. Mr. Graziano's promissory notes are due in September 2003 and bear interest at an annual rate of 10%. These promissory notes are secured by a pledge of all of the shares for which the exercise price was paid with the respective promissory notes as well as additional shares held by Mr. Graziano.

11. Legal Proceedings

On February 4, 2002, Paul D. Grindle, the former owner of Harvard Apparatus, Inc., initiated an arbitration proceeding against us and certain directors before JAMS in Boston, Massachusetts. Mr. Grindle's claims arise out of post-closing purchase price adjustments related to our purchase of the assets and business of Harvard Apparatus by virtue of an Asset Purchase Agreement dated March 15, 1996 and certain related agreements. In the arbitration demand, Mr. Grindle sought the return of 1,563,851 shares of common stock in Harvard Bioscience, or the disgorgement of the profits of our sale of the stock, as well as compensatory damages and multiple damages and attorney's fees under Mass. Gen. Laws, chapter 93A. In a demand letter that was attached to the

arbitration demand, Mr. Grindle asserted losses in the amount of $15 million, representing the value of the 1,563,851 shares of Harvard Bioscience's stock as of January 2, 2002. On October 30, 2002, we received a decision from the arbitrator that we have prevailed on all claims asserted against us and certain of our directors in the arbitration action. Specifically, we received a written decision from the arbitrator granting our motion for summary disposition with respect to all claims brought against all parties in the action. We have filed a complaint in the Massachusetts Superior Court seeking to confirm the arbitrator's decision. Mr. Grindle filed a

complaint in the Massachusetts Superior Court seeking to vacate the arbitrator's decision. These two matters have been consolidated and are currently pending.

In September, 2002, our Genomic Solutions subsidiary filed suit against Affymetrix, Inc. in the State of Michigan Circuit Court for the County of Washtenaw for breach of contract, negligent/innocent misrepresentation, tortuous interference with prospective economic advantage and declaratory relief. The action arose out of a License Agreement that Genomic Solutions entered into with Affymetrix with respect to certain Affymetrix patent rights. In November 2002, Affymetrix filed a counter-claim against Genomic Solutions alleging breach of contract and requesting approximately $1.45 million in damages for license and other fees and interest allegedly owed. On April 30, 2003, Affymetrix was granted summary disposition and Genomic Solutions' claims were dismissed. The Company is currently evaluating whether to appeal or move for reconsideration of the summary disposition ruling. The $1.45 million in damages for license and other fees is fully reserved for in the Company's consolidated financial statements.

In December, 2002, Oxford Gene Technology Ltd. filed suit against our Genomic Solutions subsidiary, Mergen Ltd., Clontech Laboratories, Inc., PerkinElmer Life Sciences, Inc., Axon Instruments, Inc. and BioDiscovery, Inc. in the United States District Court for the District of Delaware seeking unspecified damages as a result of alleged infringement by each of the defendants of a United States Patent issued to Oxford Gene Technology. On May 12, 2003, the Company and Oxford Gene Technology settled the dispute and the lawsuit will be dismissed. Under the settlement, Genomic Solutions will display certain notices in connection with the marketing of certain genomic-related products. In addition, a nominal amount is being paid to Oxford Gene Technology.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

This Quarterly Report on Form 10-Q contains statements that are not statements of historical fact and are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The forward-looking statements are principally, but not exclusively, contained in "Item 2: Management's Discussion and Analysis of Financial Condition and Results of Operations." These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to, statements about our expected research and development spending, the impact of acquisitions on future earnings, the effect of our technology on the drug development process, our intention to strengthen our market position, management's confidence or expectations, our business strategy, our positioning for growth, our ability to reduce the risk of being dependent on a single technology, our ability to avoid competition with major instrument companies, our acquisition strategy (including our ability to accelerate the growth of acquired products and to leverage our infrastructure and expertise and the availability of attractive acquisition candidates), the market demand and opportunity for our products, our estimates regarding our capital requirements, the anticipated closing of a definitive agreement for a revolving credit facility, the timing of future product introductions, our expectations in connection with current litigation (including inferences about the finality of the arbitrator's decision in the Grindle matter and the appeal of or other challenge to that decision), and our plans, objectives, expectations and intentions that are not historical facts. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could, " "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "predicts," "intends," "potential" and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in detail under the heading "Important Factors That May Affect Future Operating Results" beginning on page 17 of this Quarterly Report on Form 10-Q. You should carefully review all of these factors, as well as other risks described in our public filings, and you should be aware that there may be other factors, including factors of which we are not currently aware, that could cause these differences. Also, these forward-looking statements represent our estimates and assumptions only as of the date of this report. We may not update these forward-looking statements, even though our situation may change in the future, unless we have obligations under the Federal securities laws to update and disclose material developments related to previously disclosed information.

Overview.

Harvard Bioscience, a Delaware corporation, is a global developer, manufacturer and marketer of a broad range of specialized products, primarily scientific instruments, used to accelerate drug discovery research at pharmaceutical and biotechnology companies, universities and government laboratories worldwide. We sell our products to thousands of

researchers in over 100 countries through our direct sales force, our 1,000 page catalog (and various other specialty catalogs), and through distributors, including Amersham Biosciences and PerkinElmer. We have sales and manufacturing operations in the United States, the United Kingdom, Germany, Austria and Belgium with sales facilities in Japan, France and Canada.

Our strategy is to have a broad range of specialized products (currently over 20,000) in strong positions in niche markets focused on the bottlenecks in drug discovery research:

- By having a broad product line we believe we reduce the risk of being dependent on a single technology in an industry characterized by very rapid technological change;
- By having specialized products in niche markets we seek to reduce head-to-head competition with the major instrument companies; and
- By focusing on the bottlenecks we believe we position ourselves for above average revenue growth and above average margins.

We grow this range of products through internal development of new products, acquisitions and strategic partnerships with both pharmaceutical companies (for new product development) and other major life science companies (for expanded distribution).

We use acquisitions to expand our product line because we believe we can use our well established brands and distribution channels to accelerate the growth of these acquired products. We also believe that our expertise in operational management frequently allows us to improve profitability at acquired companies.

These products are marketed and sold through one of our three well-established global distribution channels. These are:

- For products primarily priced under $10,000: the Harvard Apparatus catalog, a name respected for innovation and quality for over 100 years
- For well-established products primarily priced in the $5,000 to $35,000 range: distribution relationships with major life science companies such as Amersham Biosciences and PerkinElmer
- For innovative products primarily priced over $25,000: our own global field sales force

In providing tools for drug discovery, we have established a significant base business and have achieved strong brand recognition. Since 1996, we have built upon our base business and brand recognition by adding new technologies in the areas of target validation, high throughput screening, sample preparation, assay development and ADMET screening.

Critical Accounting Policies

Our critical accounting policies are as follows:

- valuation of identifiable intangible assets and in process research and development in business combinations;
- valuation of long-lived and intangible assets and goodwill;
- accounting for income taxes;
- revenue recognition; and
- inventory.

Valuation of identifiable intangible assets in business combinations. Identifiable intangible assets consist primarily of trademarks and acquired technology. Such intangible assets arise from the allocation of the purchase price of businesses acquired to identifiable intangible assets based on their respective fair market value. Amounts assigned to such identifiable intangible assets are primarily based on independent appraisals using established valuation techniques and management estimates. The value assigned to trademarks was determined by estimating the royalty income that would be negotiated at an arm's-length transaction if the asset were licensed from a third party. A discount factor, ranging from 25% to 31.5%, which represents both the business and financial risks of such investments, was used to determine the present value of the future streams of income attributable to trademarks. The specific approach used to value trademarks was the Relief from Royalty ("RFR") method. The RFR method assumes that an intangible asset is valuable because the owner of the asset avoids the cost of licensing that asset. The royalty savings are then calculated by multiplying a royalty rate times a determined royalty base, i.e., the applicable level of future revenues. In determining an appropriate royalty rate, a sample of guideline, arm's length royalty and licensing agreements are analyzed. In determining the royalty base, forecasts are used based on management's judgments of expected conditions and expected courses of actions. The value

assigned to acquired technology was determined by using a discounted cash flow model which measures what a buyer would be willing to pay currently for the future cash stream potential of existing technology. The specific method used to value the technologies involved estimating future cash flows to be derived as a direct result of those technologies, and discounting those future streams to their present value. The discount factors used, ranging from 25% to 36%, reflects the business and financial risks of an investment in technologies. Forecasts of future cash flows are based on managements' judgment of expected conditions and expected courses of action.

Valuation of in-process research and development in business combinations. Purchase price allocation to in-process research and development represents the estimated fair value of research and development projects that are reasonably believed to have no alternative future use. The value assigned to in-process research and development was determined by independent appraisals by estimating the cost to develop the purchased in-process research and development into commercially feasible products, estimating the percentage of completion at the acquisition date, estimating the resulting net risk-adjusted cash flows from the projects and discounting the net cash flows to their present value. The discount rates used in determining the in-process research and development expenditures reflects a higher risk of investment because of the higher level of uncertainty due in part to the nature of the Company and the industry to constantly develop new technology for future product releases and ranged from 25% to 43.5%. The forecasts used by the Company in valuing in-process research and development were based on assumptions the Company believed at the time to be reasonable, but which are inherently uncertain and unpredictable. Given the uncertainties of the development process, no assurance can be given that deviations from the Company's estimates will occur and no assurance can be given that the in-process research and development projects identified will ever reach either technological or commercial success.

Valuation of long-lived and intangible assets and goodwill. In accordance with the provisions of Statement of Financial Accounting Standards (SFAS) No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, we assess the impairment of identifiable intangibles with finite lives and long-lived assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important which could trigger an impairment review include the following: significant underperformance relative to expected historical or projected future operating results; significant changes in the manner of our use of the acquired assets or the strategy for our overall business; significant negative industry or economic trends; significant changes in who our competitors are and what they do; significant changes in our relationship with Amersham Biosciences; significant decline in our stock price for a sustained period; and our market capitalization relative to net book value.

If we were to determine that the value of long-lived assets and identifiable intangible assets with finite lives was not recoverable based on the existence of one or more of the aforementioned factors, then the recoverability of those assets to be held and used would be measured by a comparison of the carrying amount of those assets to undiscounted future net cash flows expected to be generated by those assets. If such assets are considered to be impaired, the impairment to be recognized would be measured by the amount by which the carrying value of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to dispose.

In June 2001, SFAS No. 142, *Goodwill and Other Intangible Assets* was issued. SFAS No. 142 addresses financial accounting and reporting for acquired goodwill and other intangible assets. Among other things, SFAS No. 142 requires that goodwill and intangible assets with indefinite useful lives no longer be

amortized, but rather tested annually for impairment or more frequently if events or circumstances indicate that there may be an impairment. The impairment test consists of a comparison of the fair value of the Company's reporting units with their carrying amount. If the carrying amount exceeds its fair value, the Company is required to perform the second step of the impairment test, as this is an indication that goodwill may be impaired. The impairment loss is measured by comparing the implied fair value of the reporting unit's goodwill with its carrying amount. If the carrying amount exceeds the implied fair value, an impairment loss shall be recognized in an amount equal to the excess. After an impairment loss is recognized, the adjusted carrying amount of the intangible asset shall be its new accounting basis. Subsequent reversal of a previously recognized impairment loss is prohibited. In accordance with SFAS No. 142, the Company performed its annual impairment test on December 31, 2002, which did not indicate any impairment.

Accounting for income taxes. We are required to determine our annual income tax provision in each of the jurisdictions in which we operate. This involves determining our current and deferred income tax expense as well as accounting for differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. The future tax consequences attributable to these differences result in deferred tax assets and liabilities, which are included in our consolidated balance sheet. We must assess the recoverability of the deferred tax assets by considering whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. To the extent we believe that recovery does not meet this "more likely than not" standard as required in SFAS

No. 109, *Accounting for Income Taxes*, we must establish a valuation allowance. If a valuation allowance is established or increased in a period, we must allocate the related income tax expense to income from continuing operations in the consolidated statement of operations to the extent those deferred tax assets originated from continuing operations. To the extent income tax benefits are allocated to stockholders' equity, the related valuation allowance also must be allocated to stockholders' equity.

Management judgment is required in determining our income tax provision, deferred tax assets and liabilities and any valuation allowance recorded against net deferred tax assets. At March 31, 2003, we have established a valuation allowance attributable to certain acquisition-related temporary differences as we believe that a portion of the deferred tax assets at March 31, 2003 will not meet the "more likely than not" standard for realization in the carryback and carryforward periods based on the criteria set forth in SFAS No. 109, *Accounting for Income Taxes.* We review the recoverability of deferred tax assets during each reporting period.

Revenue recognition. The Company recognizes revenue from product sales generally upon shipment or installation, if applicable, provided that persuasive evidence of an arrangement exists, the sales price is fixed or determinable, collectability is reasonably assured and title and risk of loss have passed to the customer. The Company has no obligations to customers after the date products are shipped or installed, if applicable, other than pursuant to warranty obligations. The Company provides for the estimated costs to fulfill customer warranty obligations upon the recognition of the related revenue. The Company provides for the estimated amount of future returns upon shipment of products or installation, if applicable, based on historical experience. While product returns and warranty costs have historically not been significant, they have been within our expectations and the provisions established, however, there is no assurance that we will continue to experience the same return rates and warranty repair costs that we have in the past. Any significant increase in product return rates or a significant increase in the cost to repair our products could have a material adverse impact on our operating results for the period or periods in which such returns or increased costs materialize. The Company makes estimates evaluating its allowance for doubtful accounts. On an ongoing basis, the Company monitors collections and payments from its customers and maintains a provision for estimated credit losses based upon our historical experience and any specific customer collection issues that we have identified. While such credit losses have historically not been significant, they have been within our expectations and the provisions established, however, there is no assurance that we will continue to experience the same credit loss rates that we have in the past. A significant change in the liquidity or financial position of our customers could have a material adverse impact on the collectability of our accounts receivable and our future operating results.

Inventory. The Company values its inventory at the lower of the actual cost to purchase (first-in, first-out method) and/or manufacture the inventory or the current estimated market value of the inventory. The Company regularly reviews inventory quantities on hand and records a provision to write down excess and obsolete inventory to its estimated net realizable value if less than cost, based primarily on its estimated forecast of product demand. Since forecasted product demand quite often is a function of previous and current demand, a significant decrease in demand could result in an increase in the charges for excess inventory quantities on hand. In addition, the Company's industry is subject to technological change and new product development, and technological advances could result in an increase in the amount of obsolete inventory quantities on hand. Therefore, any significant unanticipated changes in demand or technological developments could have a significant adverse impact on the value of the Company's inventory and its reported operating results.

Results of Operations

Three months ended March 31, 2003 compared to three months ended March 31, 2002:

Revenues. Revenues increased $7.5 million, or 63%, to $19.5 million in the first quarter of 2003 from $12.0 million for the same period in 2002. Approximately $7.1 million of the increase, or 59%, represented the acquired revenues, the revenue stream of the acquired companies prior to acquisition, for the acquisitions made since the first quarter of 2002. The balance of the increase was from the growth of the acquired companies as we leverage our infrastructure and expertise and from existing businesses that introduced new products offset by a slow down in some of our more mature products. Given the uncertainty of the current economic environment we are unable to assess at this time whether this is a trend. Revenues for the first quarter of 2003 would have been approximately $18.6 million if our sales denominated in foreign currencies were translated into U.S. dollars using 2002 exchange rates, an increase of approximately 55% over the same period in 2002.

Cost of product revenue. Cost of product revenues increased $3.9 million or 68%, to $9.6 million in the first quarter of 2003 from $5.7 million for the first quarter of 2002. For the first quarter of 2003, cost of product revenues included approximately $333,000 of expensed fair value adjustments for inventory and backlog acquired with the acquisitions of Genomic Solutions, BTX, and GeneMachines, related to the orders sold in the first quarter of 2003. Without these expenses, as a percentage of product revenues, cost of product revenues for the first quarter of 2003 was approximately 48% for the first quarter of 2003 and 49% for the same period in 2002.

General and administrative expense. General and administrative expense increased $927,000 or 49%, to $2.8 million in the first quarter of 2003 from $1.9 million for the same period in 2002 due primarily to acquisitions. As a percentage of revenues, general and administrative expense was 14.5% in the first quarter of 2003 compared to 15.9% for the same period in 2002. This decrease in percentage of revenues, is the result of general and administrative expenses not increasing at the same rate as revenues since many general and administrative expenses by their nature are not directly variable as revenues change, but in many ways are fixed expenses.

Sales and marketing expense. Sales and marketing expense increased $2.1 million, or 142%, to $3.6 million in the first quarter of 2003 from $1.5 million in the first quarter of 2002. Approximately $1.9 million of the increase directly relates to the acquisitions made since the first quarter of 2002. As a percent of revenue, sales and marketing spending increased from approximately 12% in the first quarter 2002 to approximately 18% in the first quarter 2003. This increase is due primarily to the October 2002 acquisition of Genomic Solutions, which experiences higher costs associated with using a direct sales force compared to the costs associated with catalog and distributor sales the Company has historically experienced.

Research and development expense. Research and development spending, which includes expenses related to research revenues, was $1.4 million in the first quarter of 2003. Excluding research and development programs at business acquired during 2002 and 2003, spending in the first quarter of 2003 was approximately $836,000 compared to $1.0 million for the same period in 2002. This decrease of approximately $200,000 is due primarily to the restructuring at our Union Biometrica subsidiary during the third quarter of 2002 and due to the timing of spending for projects. As a percentage of revenues, research and development was 7.3% during the first quarter of 2003 compared to 8.5% for the same period in 2002.

Stock compensation expense. In the three months ended March 31, 2003, we recorded $147,000 of stock compensation expense, related to options granted prior to our initial public offering and to options issued in exchange for the outstanding options of Union Biometrica, in connection with the acquisition of Union Biometrica. In the three months ended March 31, 2002, we recorded stock compensation expense of approximately $325,000. We will recognize an aggregate of approximately $400,000 of additional expense over the remaining vesting life of the options.

Amortization of intangibles. Amortization of intangibles, including amortization of acquired technology, was $625,000 in the first quarter of 2003 compared to $305,000 in the first quarter of 2002. This increase is directly attributed to acquisitions made since the first quarter of 2002.

Other income (expense), net. For the first quarter of 2003, other income, net, was $109,000 compared to other income, net, of $40,000 for the first quarter of 2002. Net interest income for the first quarter of 2003 was $27,000 compared to net interest income of $94,000 for the same period in 2002. The decrease in net interest income for 2003 was the result of a declining cash balance due to the funding of acquisitions in 2002 and 2003 as well as due to an additional $14,000 in interest expense for the first quarter 2003 related to the $6.0 million bridge loan the company entered into in March 2003. Foreign currency adjustments resulted in approximately a $114,000 gain for the first quarter of 2003 versus approximately a $44,000 loss for the same period in 2002.

Income taxes. The Company's effective income tax rates were 41.64% for the first quarter of 2003 and 36.75% for the first quarter of 2002. Included in the calculation of these effective tax rates is non-deductible stock compensation expense of $129,000 during the first quarter of 2003 and $297,000 during the first quarter of 2002. Before the effects of these non-tax deductible stock compensation expenses, the Company's effective income tax rates were 37.95% for the first quarter of 2003 and 29.57% for the first quarter of 2002. The increase in the effective income tax rate is principally due to the Company earning a smaller percentage of its total operating income in jurisdictions that have lower effective tax rates. This change was affected by the Company's acquisition of Genomic Solutions in the fourth quarter of 2002.

Liquidity and Capital Resources

Historically, we have financed our business through cash provided by operating activities, the issuance of common stock, preferred stock, and bank borrowings. Our liquidity requirements have arisen primarily from investing activities, including funding of acquisitions, payments on outstanding indebtedness, research and development expenditures and

capital expenditures. As of March 31, 2003, we had cash and cash equivalents of $9.3 million, a decrease of $6.0 million from December 31, 2002 primarily due to funding the acquisition of BTX and partially funding the acquisition of GeneMachines. The balance of the purchase price for GeneMachines was funded by proceeds of a $6.0 million bridge loan entered into in March 2003 with Brown Brothers Harriman & Co. The Company entered into this bridge loan in anticipation of closing a $12.0 million (which would include the bridge loan) revolving credit facility to be used to fund acquisitions, provide working capital, and for general corporate needs.

During the first three months of 2003, our operating activities provided cash of $677,000 compared to $346,000 for the same period in 2002. For both periods operating cash flows were primarily due to profitable operating results, partially offset by working capital requirements.

Our investing activities used cash of $12.7 million for the first three months of 2003 and $445,000 for the first three months of 2002. In the first three months of 2003, investing activity primarily included cash used for the acquisitions of BTX and GeneMachines and, for the first three months of 2002 our investing activities primarily included cash for capital expenditures related to expanding and improving lease space for our Somerville, MA facility and outfitting our Geel, Belgium research lab.

During the first three months of 2003, financing activities provided cash of $6.0 million compared to proceeds of $941,000 for the same period in 2002. In the first three months of 2003, we entered into a $6.0 million bridge loan with Brown Brothers Harriman & Co. In the first three months of 2002 financing activities consisted mainly of proceeds of approximately $886,000 from the repayment of notes receivable from an officer.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary as a result of a number of factors. Based on our current operating plans, we expect that available cash, cash generated from operations and debt capacity (including the $12 million revolving credit facility which we are currently negotiating) will be sufficient to finance operations and capital expenditures for at least twelve months. However, we may be unable to reach agreement on the terms of the revolving credit facility and may be required to repay the $6.0 million bridge loan on less than favorable terms. In addition, we may use substantial amounts of capital to accelerate product development, expand our sales and marketing activities or make acquisitions. We may need to raise additional capital to the extent that we exhaust our available capital through these activities. Additional capital raising activities may dilute the ownership interests of existing stockholders to the extent we raise capital by issuing equity securities. Moreover, additional capital may not be available on acceptable terms or at all. Accordingly, there can be no assurance that we will be successful in raising additional capital.

Accounting Pronouncements

In June 2001, SFAS No. 143, *Accounting for Asset Retirement Obligations* was issued. SFAS No. 143 applies to legal obligations associated with the retirement of certain tangible long-lived assets. This Statement is effective for fiscal years beginning after June 15, 2002. The Company adopted SFAS No. 143 on January 1, 2003. The adoption of this Statement did not have a material impact on the Company's consolidated results of operations or financial position.

In May 2002, SFAS No. 145, *Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections*, was issued. SFAS No. 145 which is effective for fiscal years beginning after May 15, 2002 rescinds SFAS No. 4, *Reporting Gains and Losses from Extinguishment of Debt*, SFAS No. 64, *Extinguishments of Debt Made to Satisfy Sinking-Fund Requirements*, and SFAS No. 44, *Accounting for Intangible Assets of Motor Carriers*. This Statement also amends SFAS No. 13, *Accounting for Leases*, to eliminate an inconsistency between the required accounting for sale-leaseback transactions. This Statement also amends other existing authoritative pronouncements to make various technical corrections, clarify meanings, or describe their applicability under changed conditions. The Company adopted SFAS No. 145 on January 1, 2003. The adoption of SFAS No. 145 did not have a material impact on the Company's consolidated results of operations or financial position.

In July 2002, SFAS No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*, was issued. SFAS No. 146 is based on the fundamental principle that a liability for a cost associated with an exit or disposal activity should be recorded when it (1) is incurred, and (2) can be measured at fair value. SFAS No. 146 is effective for exit and disposal activities initiated after December 31, 2002. The Company adopted SFAS No. 146 on January 1, 2003. The adoption of this Statement did not have a material impact on the Company's consolidated results of operations or financial position.

In November 2002, the FASB issued Interpretation No. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness to Others, an interpretation of FASB Statements No. 5, 57 and 107 and a rescission of FASB Interpretation No. 34*. This Interpretation elaborates on the disclosures to be made by a guarantor in its interim and annual financial statements about its obligations under guarantees issued. The Interpretation also clarifies that a guarantor is required to recognize, at inception of a guarantee, a liability for the fair value of the obligation undertaken. The initial recognition and measurement provisions of the Interpretation are applicable to guarantees issued or modified after December 31, 2002. The disclosure requirements are effective for financial statements of interim and annual periods ending after December 31, 2002. The Company adopted this Interpretation on January 1, 2003 and there was no material impact on the Company's consolidated results of operations or financial position.

In December 2002, the FASB issued SFAS No. 148, *Accounting for Stock-Based Compensation — Transition and Disclosure, an amendment of FASB Statement No. 123*. This Statement amends FASB Statement No. 123, *Accounting for Stock-Based Compensation*, to provide alternative methods of transition for a voluntary change to the fair value method of accounting for stock-based employee compensation. In addition, this Statement amends the disclosure requirements of Statement No. 123 to require prominent disclosures in both annual and interim financial statements. Certain of the disclosure modifications are required for fiscal years ending after December 15, 2002 and are included in the notes to the unaudited consolidated financial statements.

In January 2003, the FASB issued Interpretation No. 46, *Consolidation of Variable Interest Entities, an interpretation of ARB No. 51*. This Interpretation addresses the consolidation by business enterprises of variable interest entities as defined in the Interpretation. The Interpretation applies immediately to variable interests in variable interest entities created after January 31, 2003, and to variable interests in variable interest entities obtained after January 31, 2003. For public enterprises with a variable interest in a variable interest entity created before February 1, 2003, the Interpretation applies to that enterprise no later than the beginning of the first interim or annual reporting period beginning after June 15, 2003. The application of this Interpretation is not expected to have a material impact on the Company's consolidated results of operations or financial position.

In November, 2002, the Emerging Issues Task Force ("EITF") reached a consensus on Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables*. EITF Issue No. 00-21 addresses the accounting, by a vendor, for contractual arrangements in which multiple revenue-generating activities will be performed by the vendor. The Issue addresses when and, if so, how an arrangement involving multiple deliverables should be divided into separate units of accounting. The Issue also addresses how the arrangement consideration should be measured and allocated to the separate units of accounting in the arrangement. This Issue otherwise does not change applicable revenue recognition criteria. Companies are required to adopt this consensus for fiscal periods beginning after June 15, 2003. Companies may apply this consensus prospectively to new arrangements initiated after the date of adoption or as a cumulative catch adjustment. Early adoption of the consensus is permitted. We are currently evaluating the effects of adopting the provisions of the EITF's consensus on this Issue.

Important Factors That May Affect Future Operating Results

Our operating results may vary significantly from quarter to quarter depending on a number of factors, including:

If it engages in any acquisition, Harvard Bioscience will incur a variety of costs, and may never realize the anticipated benefits of the acquisition.

Harvard Bioscience's business strategy includes the future acquisition of businesses, technologies, services or products that it believes are a strategic fit with its business. If Harvard Bioscience does undertake any acquisition, the process of integrating an acquired business, technology, service or product may result in unforeseen operating difficulties and expenditures and may absorb significant management attention that would otherwise be available for ongoing development of its business. Moreover, Harvard Bioscience may fail to realize the anticipated benefits of any acquisition as rapidly as expected or at all. Future acquisitions could reduce stockholders' ownership, cause Harvard Bioscience to incur debt, expose it to future liabilities and result in amortization expenses related to intangible assets with definite lives.

Harvard Bioscience may not realize the expected benefits of its recent acquisitions of Genomic Solutions, BTX and GeneMachines due to difficulties integrating the businesses, operations and product lines..

Harvard Bioscience's ability to achieve the benefits of its recent acquisitions of Genomic Solutions, BTX and GeneMachines will depend in part on the integration and leveraging of technology, operations, sales and marketing channels and personnel. The integration process is a complex, time-consuming and expensive process and may disrupt Harvard Bioscience's business if not completed in a timely and efficient manner. The challenges involved in this integration include the following:

- demonstrating to the combined company's customers and suppliers that the acquisitions will not result in adverse changes in client service standards or business focus and
- addressing any perceived adverse changes in business focus.

Harvard Bioscience may have difficulty successfully integrating the acquired businesses, the domestic and foreign operations or the product lines, and as a result, Harvard Bioscience may not realize any of the anticipated benefits of the acquisitions. Additionally, Harvard Bioscience cannot assure that its growth rate will equal the growth rates that have been experienced by Harvard Bioscience and the acquired companies, respectively, operating as separate companies in the past.

Genomic Solutions, Harvard Bioscience's recently acquired subsidiary, has a history of losses and may not be able to sustain profitability.

Genomic Solutions incurred net losses of $4.0 million for the six months ended June 30, 2002, $26.1 million for the year ended December 31, 2001, $8.9 million for the year ended December 31, 2000 and $11.1 million for the year ended December 31, 1999. As of June 30, 2002, Genomic Solutions had an accumulated deficit of $72.0 million. In September 2001, Genomic Solutions instituted a restructuring plan designed to reduce its operating expenses. In July 2002, Genomic Solutions announced a further restructuring of its operations. However, even with these restructurings, Genomic Solutions needs to generate significant revenues to achieve and maintain profitability. Genomic Solutions' continued revenue growth depends on many factors, many of which are beyond its control, including factors discussed in this risk factors section. Genomic Solutions may not sustain revenue growth. Even if Genomic Solutions does achieve profitability, it may not sustain or increase profitability on a quarterly or annual basis.

As an acquisitive company, the Company may be the subject of lawsuits from either an acquired company's previous stockholders or the Company's current stockholders.

As an acquisitive company, the Company may be the subject of lawsuits from either an acquired company's previous stockholders or the Company's current stockholders. These lawsuits could result from the actions of the acquisition target prior to the date of the acquisition, from the acquisition transaction itself or from actions after the acquisition. Defending potential lawsuits could cost the Company significant expense and detract management's attention from the operation of the business. Additionally, these lawsuits could result in the cancellation of or the inability to renew, certain insurance coverage that would be necessary to protect the Company's assets.

Current negative economic trends may adversely impact Harvard Bioscience's business.

Harvard Bioscience has experienced and may continue to experience reduced demand for its products as a result of the recent downturn and increased uncertainty in the general economic environment in which Harvard Bioscience and its customers operate. Harvard Bioscience cannot project the extent of the impact of the recent economic downturn. If economic conditions worsen or if a wider economic slowdown occurs, Harvard Bioscience may experience a material adverse effect on its business, operating results, and financial condition.

Harvard Bioscience's business is subject to economic, political and other risks associated with international revenues and operations.

Since Harvard Bioscience manufactures and sells its products worldwide, its business is subject to risks associated with doing business internationally. Harvard Bioscience's revenues from its non-U.S. operations represented approximately 48% of total revenues for the three months ended March 31, 2003. Harvard Bioscience anticipates that revenue from international operations will continue to represent a substantial portion of total revenues. In addition, a number of Harvard Bioscience's manufacturing facilities and suppliers are located outside the United States. Accordingly, Harvard Bioscience's future results could be harmed by a variety of factors, including:

- changes in foreign currency exchange rates, which resulted in a foreign currency gain of approximately $114,000 and a decrease of foreign equity of approximately $190,000 for the three months ended March 31, 2003,
- changes in a specific country's or region's political or economic conditions, including Western Europe and Japan, in particular,
- potentially negative consequences from changes in tax laws affecting the ability to expatriate profits,
- difficulty in staffing and managing widespread operations, and
- unfavorable labor regulations applicable to European operations, such as severance and the unenforceability of non-competition agreements in the European Union.

Harvard Bioscience's quarterly revenues will likely be affected by various factors, including the seasonal nature of purchasing in Europe and the timing of capital equipment purchases by customers.

Harvard Bioscience's revenues may vary from quarter to quarter due to a number of factors, including the timing of catalog mailings and new product introductions, future acquisitions and its substantial sales to European customers, who in summer months often defer purchases. Therefore, Harvard Bioscience expects revenues from European sales to be lower during the summer season and as a result quarter-to-quarter revenues will likely experience fluctuations. With the acquisition of Union Biometrica in May 2001 and Genomic Solutions in October 2002, an increasing portion of Harvard Bioscience's revenues may result from sales of relatively high-priced products. Delays in purchase orders, receipt, manufacture, shipment or receivables collection of these relatively high-priced products could lead to substantial variability in revenues, operating results and working capital requirements from quarter-to-quarter,

which could adversely affect Harvard Bioscience's stock price. In particular, delays or reduction in purchase orders from the pharmaceutical and biotechnology industries could have a material adverse effect on Harvard Bioscience, as more fully described elsewhere in these risk factors.

Harvard Bioscience may lose money when it exchanges foreign currency received from international revenues into U.S. dollars.

For the three months ended March 31, 2003, approximately 48% of Harvard Bioscience's business was conducted in currencies other than the U.S. dollar, which is its reporting currency. As a result, currency fluctuations among the U.S. dollar and the currencies in which Harvard Bioscience does business have caused and will continue to cause foreign currency transaction gains and losses. Currently, Harvard Bioscience attempts to manage foreign currency risk through the matching of assets and liabilities. In the future, Harvard Bioscience may undertake to manage foreign currency risk through additional hedging methods. Harvard Bioscience recognizes foreign currency gains or losses arising from its operations in the period incurred. Harvard Bioscience cannot guarantee that it will be successful in managing foreign currency risk or in predicting the effects of exchange rate fluctuations upon its future operating results because of the number of currencies involved, the variability of currency exposure and the potential volatility of currency exchange rates.

Additional costs for complying with recent and proposed future changes in Securities and Exchange Commission, Nasdaq Stock Market and accounting rules could adversely affect our profits.

Recent and proposed future changes in the Securities and Exchange Commission and Nasdaq rules, as well as changes in accounting rules, will cause the Company to incur additional costs including professional fees, as well as additional personnel costs, in order to keep informed of the changes and operate in a compliant manner. These additional costs may be significant enough to cause the Company's growth targets to be reduced, and consequently, the Company's financial position and results of operations may be negatively impacted.

With new rules, including the Sarbanes-Oxley Act of 2002, the Company may have difficulty in retaining or attracting officers, directors for the board and various sub-committees thereof.

The recent and proposed changes in SEC and Nasdaq rules, including those resulting from the Sarbanes-Oxley Act of 2002, may result in the Company being unable to attract and retain the necessary officers, board directors and members of sub-committees thereof, to effectively manage the Company. The perceived increased personal risk associated with these recent changes, may deter qualified individuals from wanting to participate in these roles.

The Company may have difficulty obtaining adequate directors and officers insurance and the cost for coverage may significantly increase.

As an acquisitive company, the Company may have difficulty in obtaining adequate directors' and officers' insurance to protect the Company and its Directors and Officers from claims made against them. Additionally, even if adequate coverage is available, the costs for such coverage may be significantly greater than current costs. This additional cost may have a significant effect on the Company's profits and as a result the Company's results of operations may be adversely affected.

Harvard Bioscience plans significant growth, and there is a risk that it will not be able to manage this growth.

Harvard Bioscience's success will depend on the expansion of its operations both through organic growth and acquisitions. Effective growth management will place increased demands on management, operational and financial resources. To manage growth, Harvard Bioscience must expand its facilities, augment its operational, financial and management systems, and hire and train additional qualified personnel. Failure to manage this growth effectively could impair Harvard Bioscience's ability to generate revenue or could cause Harvard Bioscience's expenses to increase more rapidly than revenue, resulting in operating losses.

If it fails to retain key personnel and hire, train and retain qualified employees, Harvard Bioscience may not be able to compete effectively, which could result in reduced revenue or increased costs.

Harvard Bioscience's success is highly dependent on the continued services of key management, technical and scientific personnel. Harvard Bioscience's management and other employees may voluntarily terminate their employment at any time upon short notice. The loss of the services of any member of the senior management team, including the Chief Executive Officer, Chane Graziano, the President, David Green, the Chief Financial Officer, Susan Luscinski, or any of the managerial, technical or scientific staff may significantly delay or prevent the achievement of product development and other business objectives. Harvard Bioscience maintains key person life insurance on Messrs. Graziano and Green. Harvard Bioscience's future success will also depend on its ability to identify, recruit and retain additional qualified scientific, technical and managerial personnel. Competition for qualified personnel in the technology area is intense, and Harvard Bioscience operates in several geographic locations where labor markets are particularly competitive, including Boston, Massachusetts and London and Cambridge, England, and where demand for personnel with these skills is extremely high and is likely to remain high. As a result, competition for qualified personnel is intense, particularly in the areas of general management, finance, information technology, engineering and science, and the process of hiring suitably qualified personnel is often lengthy and expensive, and may become more expensive in the future. If it is unable to hire and retain a sufficient number of qualified employees, Harvard Bioscience's ability to conduct and expand its business could be seriously reduced.

Harvard Bioscience's competitors and potential competitors may develop products and technologies that are more effective or commercially attractive than its products.

Harvard Bioscience expects to encounter increased competition from both established and development-stage companies that continually enter the market. Harvard Bioscience anticipates that these competitors will include:

- companies developing and marketing life sciences research tools,
- health care companies that manufacture laboratory-based tests and analyzers,
- diagnostic and pharmaceutical companies, and
- companies developing drug discovery technologies.

Currently, Harvard Bioscience's principal competition comes from established companies that provide products that perform many of the same functions for which Harvard Bioscience markets its products. Harvard Bioscience's competitors may develop or market products that are more effective or commercially attractive than its current or future products. Many of Harvard Bioscience's competitors have substantially greater financial, operational, marketing and technical resources than Harvard Bioscience does. Moreover, these competitors may offer broader product lines and tactical discounts, and may have greater name recognition. In addition, Harvard Bioscience may face competition from

new entrants into the field. Harvard Bioscience may not have the financial resources, technical expertise or marketing, distribution or support capabilities to compete successfully in the future.

If Harvard Bioscience is unable to effectively protect its intellectual property, third parties may use its technology, which would impair Harvard Bioscience's ability to compete in its markets.

Harvard Bioscience's continued success will depend in significant part on its ability to obtain and maintain meaningful patent protection for certain of its products throughout the world. Patent law relating to the scope of claims in the technology fields in which Harvard Bioscience operates is still evolving. The degree of future protection for Harvard Bioscience's proprietary rights is uncertain. Harvard Bioscience owns 22 U.S. patents and has 20 patent applications pending in the U.S. Harvard Bioscience also owns numerous U.S. registered trademarks and trade names and has applications for the registration of trademarks and trade names pending. Harvard Bioscience relies on patents to protect a significant part of its intellectual property and to enhance its competitive position. However, Harvard Bioscience's presently pending or future patent applications may not issue as patents, and any patent previously issued to Harvard Bioscience may be challenged, invalidated, held unenforceable or circumvented. Furthermore, the claims in patents which have been issued or which may be issued to Harvard Bioscience in the future may not be sufficiently broad to prevent third parties from producing competing products similar to Harvard Bioscience's products. In addition, the laws of various foreign countries in which Harvard Bioscience competes may not protect its intellectual property to the same extent as do the laws of the United States. If Harvard Bioscience fails to obtain adequate patent protection for its proprietary technology, its ability to be commercially competitive will be materially impaired.

In addition to patent protection, Harvard Bioscience also relies on protection of trade secrets, know-how and confidential and proprietary information. To maintain the confidentiality of trade-secrets and proprietary information, Harvard Bioscience generally seeks to enter into confidentiality agreements with its employees, consultants and strategic partners upon the commencement of a relationship. However, Harvard Bioscience may not obtain these agreements in all circumstances. In the event of unauthorized use or disclosure of this information, these agreements, even if obtained, may not provide meaningful protection for Harvard Bioscience's trade-secrets or other confidential information. In addition, adequate remedies may not exist in the event of unauthorized use or disclosure of this information. The loss or exposure of Harvard Bioscience's trade secrets and other proprietary information would impair its competitive advantages and could have a material adverse effect on its operating results, financial condition and future growth prospects.

Harvard Bioscience may be involved in lawsuits to protect or enforce its patents that would be expensive and time-consuming.

In order to protect or enforce its patent rights, Harvard Bioscience may initiate patent litigation against third parties. Harvard Bioscience may also become subject to interference proceedings conducted in the patent and trademark offices of various countries to determine the priority of inventions. Several of Harvard Bioscience's products are based on patents that are closely surrounded by patents held by competitors or potential competitors. As a result, Harvard Bioscience believes there is a greater likelihood of a patent dispute than would be expected if its patents were not closely surrounded by other patents. The defense and prosecution, if necessary, of intellectual property suits, interference proceedings and related legal and administrative proceedings would be costly and divert Harvard Bioscience's technical and management personnel from their normal responsibilities. Harvard Bioscience may not prevail in any of these suits. An adverse determination of any litigation or defense proceedings could put Harvard Bioscience's patents at risk of being invalidated or interpreted narrowly and could put its patent applications at risk of not issuing.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of Harvard Bioscience's confidential information could be compromised by disclosure during this type of litigation. For example, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments in the litigation. Securities analysts or investors may perceive these announcements to be negative, which could cause the market price of Harvard Bioscience's stock to decline.

Harvard Bioscience's success will depend partly on its ability to operate without infringing on or misappropriating the intellectual property rights of others.

Harvard Bioscience may be sued for infringing on the intellectual property rights of others, including the patent rights, trademarks and trade names of third parties. Intellectual property litigation is costly and the outcome is uncertain. If Harvard Bioscience does not prevail in any intellectual property litigation, in addition to any damages it might have to pay, Harvard Bioscience could be required to stop the infringing activity, or obtain a license to or design around the

intellectual property in question. If Harvard Bioscience is unable to obtain a required license on acceptable terms, or is unable to design around any third party patent, Harvard Bioscience may be unable to sell some of its products and services, which could result in reduced revenue.

AmiKa Corporation, whose assets Harvard Bioscience purchased in July 2000, received and responded to correspondence from counsel to a third party competitor regarding the possible infringement by it of a patent and other pending patent applications held by such third party. Because this competitor has not pursued this matter since AmiKa's reply on June 7, 2000 in which AmiKa stated that it did not believe it was infringing on this competitor's patents, Harvard Bioscience believes that this matter has been concluded. However, Harvard Bioscience cannot assure you that this third party competitor will not assert these or similar claims in the future. Harvard Bioscience does not currently derive a significant portion of its revenue from products which depend on the intellectual property related to this alleged infringement.

Harvard Bioscience is dependent upon its licensed technologies and may need to obtain additional licenses in the future to offer its products and remain competitive.

Harvard Bioscience has licensed key components of its technologies from third parties. While it does not currently derive a material portion of its revenue from products that depend on these licensed technologies, Harvard Bioscience may in the future. If its license agreements were to terminate prematurely or if it breaches the terms of any licenses or otherwise fails to maintain its rights to these technologies, Harvard Bioscience may lose the right to manufacture or sell its products that use these licensed technologies. In addition, Harvard Bioscience may need to obtain licenses to additional technologies in the future in order to keep its products competitive. If it fails to license or otherwise acquire necessary technologies, Harvard Bioscience may not be able to develop new products that it needs to remain competitive.

Many of Harvard Bioscience's current and potential customers are from the pharmaceutical and biotechnology industries and are subject to risks faced by those industries.

Harvard Bioscience derives a substantial portion of its revenues from pharmaceutical and biotechnology companies. Harvard Bioscience expects that pharmaceutical and biotechnology companies will continue to be its major source of revenues for the foreseeable future. As a result, Harvard Bioscience is subject to risks and uncertainties that affect the pharmaceutical and biotechnology industries, such as pricing pressures as third-party payers continue challenging the pricing of medical products and services, government regulation, ongoing consolidation and uncertainty of technological change, and to reductions and delays in research and development expenditures by companies in these industries. In particular, several proposals are being contemplated by lawmakers in the United States to extend the Federal Medicare program to include reimbursement for prescription drugs. Many of these proposals involve negotiating decreases in prescription drug prices or imposing price controls on prescription drugs. If appropriate reimbursement cannot be obtained, it could result in customers purchasing fewer products from Harvard Bioscience as they reduce their research and development expenditures.

In particular, the biotechnology industry has been faced with declining market capitalization and a difficult capital-raising and financing environment. If biotechnology companies are unable to obtain the financing necessary to purchase Harvard Bioscience's products, Harvard Bioscience's business and results of operations could be materially adversely affected. As it relates to the pharmaceutical industry, several companies have significant patents that have expired or are about to expire, which could result in reduced revenues for those companies. If pharmaceutical companies suffer reduced revenues as a result of these patent expirations, they may be unable to purchase Harvard Bioscience's products, and Harvard Bioscience's business and results of operations could be materially adversely affected.

In addition, Harvard Bioscience is dependent, both directly and indirectly, upon general health care spending patterns, particularly in the research and development budgets of the pharmaceutical and biotechnology industries, as well as upon the financial condition and purchasing patterns of various governments and government agencies. Many of Harvard Bioscience's customers, including universities, government research laboratories, private foundations and other institutions, obtain funding for the purchase of products from grants by governments or government agencies. There exists the risk of a potential decrease in the level of governmental spending allocated to scientific and medical research which could substantially reduce or even eliminate these grants. If government funding necessary to purchase Harvard Bioscience's products were to decrease, Harvard Bioscience's business and results of operations could be materially adversely affected.

If Harvard Bioscience is unable to achieve and sustain market acceptance of its target validation high throughput screening, assay development and ADMET screening products across their broad intended range of applications, Harvard Bioscience will not generate expected revenue growth.

Harvard Bioscience's business strategy depends, in part, on successfully developing and commercializing its ADMET screening, molecular biology, high-throughput/high-content screening, and genomics, proteomics and high-throughput screening to meet customers' expanding needs and demands, an example of which is the COPAS™ technology obtained from the 2001 acquisition of Union Biometrica. Market acceptance of this and other new products will depend on many factors, including the extent of Harvard Bioscience's marketing efforts and its ability to demonstrate to existing and potential customers that its technologies are superior to other technologies or techniques and products that are available now or may become available in the future. If Harvard Bioscience's new products do not gain market acceptance, or if market acceptance occurs at a slower rate than anticipated, it could materially adversely affect its business and future growth prospects.

Harvard Bioscience's products compete in markets that are subject to rapid technological change, and therefore one or more of its products could be made obsolete by new technologies.

Because the market for drug discovery tools is characterized by rapid technological change and frequent new product introductions, Harvard Bioscience's product lines may be made obsolete unless it is able to continually improve existing products and develop new products. To meet the evolving needs of its customers, Harvard Bioscience must continually enhance its current and planned products and develop and introduce new products. However, Harvard Bioscience may experience difficulties that may delay or prevent the successful development, introduction and marketing of new products or product enhancements. In addition, Harvard Bioscience's product lines are based on complex technologies that are subject to rapid change as new technologies are developed and introduced in the marketplace. Harvard Bioscience may have difficulty in keeping abreast of the rapid changes affecting each of the different markets it serves or intends to serve. Harvard Bioscience's failure to develop and introduce products in a timely manner in response to changing technology, market demands or the requirements of its customers could cause its product sales to decline, and Harvard Bioscience could experience significant losses.

Harvard Bioscience offers and plans to offer a broad product line and has incurred and expects to continue to incur substantial expenses for development of new products and enhanced versions of its existing products. The speed of technological change in its market may prevent Harvard Bioscience from being able to successfully market some or all of its products for the length of time required to recover development costs. Failure to recover the development costs of one or more products or product lines could decrease Harvard Bioscience's profitability or cause Harvard Bioscience to experience significant losses.

Harvard Bioscience has limited experience in manufacturing some of its products that could cause problems or delays resulting in lost revenue.

If Harvard Bioscience fails to manufacture and deliver products in a timely manner, its relationships with its customers could be seriously harmed, and its revenue could decline. To achieve the production levels necessary for successful commercialization, Harvard Bioscience will need to scale-up its manufacturing facilities and in some cases establish automated manufacturing methods and quality control procedures. Harvard Bioscience cannot assure you that manufacturing or quality control problems will not arise as it attempts to scale-up its production or that it can scale-up manufacturing and quality control in a timely manner or at commercially reasonable costs. If it is unable to manufacture these products consistently on a timely basis because of these or other factors, Harvard Bioscience may not achieve the level of sales from these products that it otherwise anticipates.

If Amersham Biosciences (formerly Amersham Pharmacia Biotech) terminates its distribution agreement with Harvard Bioscience or fails to perform its obligations under the distribution agreement, it could impair the marketing and distribution efforts for some of Harvard Bioscience's products and result in lost revenues.

For the three months ended March 31, 2003, approximately 11% of Harvard Bioscience's revenues were generated through an agreement with Amersham Biosciences, which was renegotiated in August 2001, under which Amersham Biosciences acts as the primary marketing and distribution channel for the products of Harvard Bioscience's Biochrom subsidiary. Under the terms of this agreement, Harvard Bioscience is restricted from allowing another person or entity to distribute, market and sell the majority of the products of its Biochrom subsidiary. Harvard Bioscience is also restricted from making or promoting sales of the majority of the products of its Biochrom subsidiary to any person or entity other than Amersham Biosciences or its authorized sub-distributors. Harvard Bioscience has little or no control over

Amersham Biosciences' marketing and sales activities or the use of its resources. Amersham Biosciences may fail to purchase sufficient quantities of products from Harvard Bioscience or perform appropriate marketing and sales activities. The failure by Amersham Biosciences to perform these activities could materially adversely affect Harvard Bioscience's business and growth prospects during the term of this agreement. In addition, Harvard Bioscience's inability to maintain its arrangement with Amersham Biosciences for product distribution could materially impede the growth of Harvard Bioscience's business and its ability to generate sufficient revenue. Harvard Bioscience's agreement with Amersham Biosciences may be terminated with 30 days notice under some circumstances, including in the event of a breach of a material term by Harvard Bioscience. This agreement has an initial term of three years, commencing August 1, 2001, after which it will automatically renew for an additional two years, unless terminated earlier by either party. In addition, the agreement may be terminated in accordance with its terms by either party upon 18 months prior written notice. While Harvard Bioscience believes its relationship with Amersham Biosciences is good, Harvard Bioscience cannot guarantee that the contract will be renewed or that Amersham Biosciences will aggressively market Harvard Bioscience's products in the future.

Accounting for goodwill may have a material adverse effect on Harvard Bioscience.

Harvard Bioscience has historically amortized goodwill purchased in its acquisitions on a straight-line basis ranging from five to 15 years. Upon the adoption of SFAS No. 142, "Goodwill and Other Intangible Assets," goodwill and intangible assets with indefinite lives from acquisitions after June 30, 2001 and existing goodwill and intangible assets with indefinite lives from acquisitions prior to July 1, 2001 that remain as of December 31, 2001 are no longer amortized, but instead are evaluated annually to determine whether any portion of the remaining balance of goodwill and indefinite lived intangibles may not be recoverable, or more frequently, if events or circumstances indicate there may be an impairment. If it is determined in the future that a portion of Harvard Bioscience's goodwill is impaired, Harvard Bioscience will be required to write off that portion of its goodwill which could have an adverse effect on net income for the period in which the write off occurs. At March 31, 2003, Harvard Bioscience had goodwill of $34.1 million, or 29% of its total assets.

Harvard Bioscience may be adversely affected by litigation or arbitration involving Paul D. Grindle.

On February 4, 2002, Paul D. Grindle, the former owner of Harvard Apparatus, Inc., initiated an arbitration proceeding against Harvard Bioscience and certain directors before JAMS in Boston, Massachusetts. Mr. Grindle's claims arise out of post-closing purchase price adjustments related to Harvard Bioscience's purchase of the assets and business of Harvard Apparatus by virtue of an Asset Purchase Agreement dated March 15, 1996 and certain related agreements. In the arbitration demand, Mr. Grindle sought the return of 1,563,851 shares of common stock in Harvard Bioscience, or the disgorgement of the profits of Harvard Bioscience's sale of the stock, as well as compensatory damages and multiple damages and attorney's fees under Mass. Gen. Laws, chapter 93A. In a demand letter that was attached to the arbitration demand, Mr. Grindle asserted losses in the amount of $15 million, representing the value of the 1,563,851 shares of Harvard Bioscience's common stock as of January 2, 2002. On October 30, 2002, the Company received a decision from the arbitrator that it has prevailed on all claims asserted against it and certain of its directors in the arbitration action. Specifically, the Company received a written decision from the arbitrator granting its motion for summary disposition with respect to all claims brought against all parties in the action. We have filed a complaint in the Massachusetts Superior Court seeking to confirm the arbitrator's decision. Mr. Grindle filed a complaint in the Massachusetts Superior Court seeking to vacate the arbitrator's decision. These two matters have been consolidated and are pending. Harvard Bioscience believes that the defense of this challenge could involve significant litigation-related expenses, which could have an adverse effect on Harvard Bioscience's results of operations.

Genomic Solutions, Harvard Bioscience's recently acquired subsidiary, and its customers are subject to significant technological uncertainty which could result in reduced acceptance and demand for Genomic Solutions' products.

Genomic Solutions' products, and the research for which they are predominately used, involve several new and complex technologies. The instrumentation and software that comprise Genomic Solutions' systems have only recently been used in commercial applications. Scientists and technicians using Genomic Solutions' products require new technical skills and training and may experience difficulties with the products. As the products continue to be used, it is possible that previously unrecognized defects will emerge. Further, in order for Genomic Solutions to address new applications for its products, it may have to add features and design new software. If it is unable to validate or achieve the improvements in its products necessary for their continued successful commercialization, the demand for its products will suffer.

The outcomes of research based on technologies using Genomic Solutions' products will be subject to the risks of failure inherent in the development of new technologies. These risks include the possibility that:

- any products based on these technologies are ineffective, unreliable or unsafe, or otherwise fail;
- producers will be unable to manufacture the products on a large scale or market the products economically;
- proprietary rights of third parties will preclude the marketing of the products; and
- third parties will market equivalent or superior products.

The failure of research and development activities using Genomic Solutions' products to result in commercially viable products could reduce the demand for those products.

Customer, vendor and employee uncertainty about the effects of the acquisitions with Genomic Solutions, BTX and GeneMachines could harm the Company.

Harvard Bioscience's and the acquired companies' customers may, in response to the consummation of the acquisitions, delay or defer purchasing decisions. Any delay or deferral in purchasing decisions by customers could adversely affect the business of the combined company. Similarly, Genomic Solutions' and GeneMachines' employees may experience uncertainty about their future role with the combined company until or after Harvard Bioscience executes its strategies with regard to Genomic Solutions and GeneMachines employees. This may adversely affect the combined company's ability to attract and retain key Genomic Solutions and GeneMachines management, sales, marketing and technical personnel.

A significant portion of the sales cycle for Harvard Bioscience's products is lengthy and it may spend significant time on sales opportunities with no assurance of success.

Harvard Bioscience's ability to obtain customers for its products, specifically for products made by Union Biometrica and Genomic Solutions, depends in significant part upon the perception that its products can help accelerate drug discovery and development efforts. The sales cycle for its systems is typically between three and six months due to the education effort that is required. Harvard Bioscience's sales efforts often require sales presentations to various departments within a single customer, including research and development personnel and key management. In addition, Harvard Bioscience may be required to negotiate agreements containing terms unique to each customer. Harvard Bioscience may expend substantial funds and management effort with no assurance that it will successfully sell its systems or products to the customer.

Ethical concerns surrounding the use of genomic information and misunderstanding of the nature of its business could adversely affect the Company's ability to develop and sell its existing products and new products.

Genetic screening of humans is used to determine individual predisposition to medical conditions. Genetic screening has raised ethical issues regarding the confidentiality and appropriate uses of the resulting information. Government authorities may regulate or prohibit the use of genetic screening to determine genetic predispositions to medical conditions. Additionally, the public may disfavor and reject the use of genetic screening.

Genomic and proteomic research is used to determine the role of genes and proteins in living organisms. The Company's products are designed and used for genomic and proteomic research and drug discovery and cannot be used for genetic screening without significant modification. However, it is possible that government authorities and the public may fail to distinguish between the genetic screening of humans and genomic and proteomic research. If this occurs, the Company's products and the processes for which its products are used may be subjected to government regulations intended to affect genetic screening. Further, if the public fails to distinguish between the two fields, it may pressure the Company's customers to discontinue the research and development initiatives for which the Company's products are used.

The merger with Genomic Solutions may fail to qualify as a reorganization for federal income tax purposes, resulting in the recognition of taxable gain or loss in respect of Harvard Bioscience's treatment of the merger as a taxable sale.

Both Harvard Bioscience and Genomic Solutions intended the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended. Although the Internal Revenue Service, or IRS, will not provide a ruling on the matter, Genomic Solutions obtained a legal opinion from its tax counsel that the merger constitutes a reorganization for federal income tax purposes. This opinion does not bind the IRS or prevent the

IRS from adopting a contrary position. If the merger fails to qualify as a reorganization, the merger would be treated as a deemed taxable sale of assets by Genomic Solutions for an amount equal to the merger consideration received by Genomic Solutions' stockholders plus any liabilities assumed by Harvard Bioscience. As successor to Genomic Solutions, Harvard Bioscience would be liable for any tax incurred by Genomic Solutions as a result of this deemed asset sale.

Failure to raise additional capital or generate the significant capital necessary to expand its operations and invest in new products could reduce Harvard Bioscience's ability to compete and result in lower revenue.

Harvard Bioscience anticipates that its existing capital resources, including debt and equity, will enable it to maintain currently planned operations for the foreseeable future. However, this expectation is premised on the current operating plan, which may change as a result of many factors, including market acceptance of new products and future opportunities with collaborators. Consequently, Harvard Bioscience may need additional funding sooner than anticipated. Harvard Bioscience's inability to raise capital could seriously harm its business and product development efforts.

If Harvard Bioscience raises additional funds through the sale of equity or convertible debt or equity-linked securities, existing percentages of ownership in the Company will be reduced. In addition, these transactions may dilute the value of outstanding Harvard Bioscience stock. Harvard Bioscience may issue securities that have rights, preferences and privileges senior to its common stock. If it raises additional funds through collaborations or licensing arrangements, Harvard Bioscience may relinquish rights to certain of its technologies or products, or grant licenses to third parties on terms that are unfavorable. Harvard Bioscience may be unable to raise additional funds on acceptable terms. If future financing is not available or is not available on acceptable terms, Harvard Bioscience may have to curtail operations or change its business strategy.

Harvard Bioscience's stock price has fluctuated in the past and could experience substantial declines in the future and, as a result, management's attention may be diverted from more productive tasks.

The market price of Harvard Bioscience's common stock has experienced significant fluctuations since its initial public offering in December 2000 and may become volatile and could decline in the future, perhaps substantially, in response to various factors, many of which are beyond its control, including:

- technological innovations by competitors or in competing technologies,

- revenues and operating results fluctuating or failing to meet the expectations of securities analysts or investors in any quarter,
- termination or suspension of equity research coverage by securities' analysts,
- comments of securities analysts and mistakes by or misinterpretation of comments from analysts,
- downward revisions in securities analysts' estimates or management guidance,
- investment banks and securities analysts may themselves be subject to suits that may adversely affect the perception of the market,
- conditions or trends in the biotechnology and pharmaceutical industries,
- announcements of significant acquisitions or financings or changes in strategic partnerships, and
- a decrease in the demand for Harvard Bioscience's common stock.

In addition, the stock market in general, and the Nasdaq National Market and the biotechnology industry market in particular, have experienced significant price and volume fluctuations that at times have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry factors may seriously harm the market price of Harvard Bioscience's common stock, regardless of its operating performance. In the past, securities class action litigation has often been instituted following periods of volatility in the market price of a company's securities. A securities class action suit against Harvard Bioscience could result in substantial costs, potential liabilities and the diversion of management's attention and resources.

Provisions of Delaware law and of Harvard Bioscience's charter and bylaws may make a takeover more difficult which could cause its stock price to decline.

Provisions in Harvard Bioscience's certificate of incorporation and bylaws and in the Delaware corporate law may make it difficult and expensive for a third party to pursue a tender offer, change in control or takeover attempt which is opposed by management and the board of directors. Public stockholders who might desire to participate in such a transaction may not have an opportunity to do so. Harvard Bioscience also has a staggered board of directors that makes it difficult for stockholders to change the composition of the board of directors in any one year. These anti-takeover provisions could substantially impede the ability of public stockholders to change Harvard Bioscience's management and board of directors. Such provisions may also limit the price that investors might be willing to pay for shares of Harvard Bioscience's common stock in the future.

An active trading market for Harvard Bioscience's common stock may not be sustained.

Although Harvard Bioscience's common stock is quoted on the Nasdaq National Market, an active trading market for the shares may not be sustained.

Future issuance of preferred stock may dilute the rights of Harvard Bioscience's common stockholders.

Harvard Bioscience's board of directors has the authority to issue up to 5,000,000 shares of preferred stock and to determine the price, privileges and other terms of these shares. The board of directors may exercise this authority without any further approval of stockholders. The rights of the holders of common stock may be adversely affected by the rights of future holders of preferred stock.

Cash dividends will not be paid on Harvard Bioscience's common stock.

Harvard Bioscience intends to retain all of its earnings to finance the expansion and development of its business and does not anticipate paying any cash dividends in the foreseeable future. As a result, capital appreciation, if any, of Harvard Bioscience's common stock will be a stockholder's sole source of gain for the foreseeable future.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We manufacture and test the majority of products in locations throughout the United States, the United Kingdom and Germany. We sell our products globally through our direct catalog sales and indirect distributor channel. As a result, our financial results are affected by factors such as changes in foreign currency exchange rates and weak economic conditions in foreign markets.

We collect amounts representing a substantial portion of our revenues and pay amounts representing a substantial portion of our operating expenses in foreign currencies. As a result, changes in currency exchange rates from time to time may affect our operating results. Historically, we have not hedged our foreign currency position. Currently, we attempt to manage foreign currency risk through the matching of assets and liabilities. However, as our sales expand internationally, we plan to continue to evaluate currency risks and we may enter into foreign exchange contracts from time to time to mitigate foreign currency exposure.

Item 4. Controls and Procedures.

(a) Evaluation of disclosure controls and procedures.

As required by Rule 13a-15 under the Securities Exchange Act of 1934, within the 90 days prior to the date of this report, we carried out an evaluation under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. In designing and evaluating our disclosure controls and procedures, we and our management recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and our management necessarily was required to apply its judgment in evaluating and implementing possible controls and procedures. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that they believe that, as of the date of completion of the evaluation, our disclosure controls and procedures were reasonably effective to ensure that information required to be disclosed by us in the reports 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. We will continue to review and

document our disclosure controls and procedures, including our internal controls and procedures for financial reporting, on an ongoing basis, and may from time to time make changes aimed at enhancing their effectiveness and to ensure that our systems evolve with our business.

(b) Changes in internal controls.

None.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings.

On February 4, 2002, Paul D. Grindle, the former owner of Harvard Apparatus, Inc., initiated an arbitration proceeding against us and certain directors before JAMS in Boston, Massachusetts. Mr. Grindle's claims arise out of post-closing purchase price adjustments related to our purchase of the assets and business of Harvard Apparatus by virtue of an Asset Purchase Agreement dated March 15, 1996 and certain related agreements. In the arbitration demand, Mr. Grindle sought the return of 1,563,851 shares of common stock in Harvard Bioscience, or the disgorgement of the profits of our sale of the common stock, as well as compensatory damages and multiple damages and attorney's fees under Mass. Gen. Laws, chapter 93A. In a demand letter that was attached to the arbitration demand, Mr. Grindle asserted losses in the amount of $15 million, representing the value of the 1,563,851 shares of Harvard Bioscience's common stock as of January 2, 2002. On October 30, 2002, we received a decision from the arbitrator that we have prevailed on all claims asserted against us and certain of our directors in the arbitration action. Specifically, we received a written decision from the arbitrator granting our motion for summary disposition with respect to all claims brought against all parties in the action. We have filed a complaint in the Massachusetts Superior Court seeking to confirm the arbitrator's decision. Mr. Grindle filed a complaint in the Massachusetts Superior Court seeking to vacate the arbitrator's decision. These two matters have been consolidated and are currently pending.

In September, 2002, our Genomic Solutions subsidiary filed suit against Affymetrix, Inc. in the State of Michigan Circuit Court for the County of Washtenaw for breach of contract, negligent/innocent misrepresentation, tortuous interference with prospective economic advantage and declaratory relief. The action arose out of a License Agreement that Genomic Solutions entered into with Affymetrix with respect to certain Affymetrix patent rights. In November 2002, Affymetrix filed a counter-claim against Genomic Solutions alleging breach of contract and requesting approximately $1.45 million in damages for license and other fees and interest allegedly owed. On April 30, 2003 Affymetrix was granted summary disposition and Genomic Solutions' claims were dismissed. The Company is currently evaluating whether to appeal or move for reconsideration of the summary disposition ruling. The $1.45 million in damages for license and other fees is fully reserved for in the Company's consolidated financial statements.

In December, 2002, Oxford Gene Technology Ltd. filed suit against our Genomic Solutions subsidiary, Mergen Ltd., Clontech Laboratories, Inc., PerkinElmer Life Sciences, Inc., Axon Instruments, Inc. and BioDiscovery, Inc. in the United States District Court for the District of Delaware seeking unspecified damages as a result of alleged infringement by each of the defendants of a United States Patent issued to Oxford Gene Technology. On May 12, 2003, the Company and Oxford Gene Technology settled the dispute and the lawsuit will be dismissed. Under the settlement, Genomic Solutions will display certain notices in connection with the marketing of certain genomic-related products. In addition, a nominal amount is being paid to Oxford Gene Technology.

Item 2. Changes in Securities and Use of Proceeds

On December 7, 2000, the Company sold, pursuant to an underwritten initial public offering, 6,250,000 shares of common stock at a price of $8 per share. Following the offering, proceeds were used to repay substantially all of the Company's debt as well as redeem its redeemable preferred stock. On January 9, 2001, the underwriters exercised their allotment option whereby the Company sold an additional 937,500 shares of its common stock at a price of $8 per share. The net proceeds to the Company for the initial public offering and the underwriters exercise of their allotment was $51.8 million.

The effective date of the Securities Act registration statement for which the use of proceeds information is being disclosed was December 6, 2000, and the Commission file number assigned to the registration statement is 333-45996. As of March 31, 2003 we have used all the proceeds from the initial public offering. The use of proceeds from our initial

public offering does not represent a material change in the use of proceeds described in our prospectus and in our Annual Report on Form 10-K for the period ended December 31, 2002.

Item 3. Defaults Upon Senior Securities – None.

Item 4. Submission of Matters to a Vote of Security Holders — None.

Item 5. Other Information – None.

Item 6. Exhibits and Reports on Form 8-K

(a) Exhibit Index

2.1 Asset Purchase Agreement, dated as of February 28, 2003, by and between Genomic Solutions, Inc. and Genomic Instrumentation Services, Inc. d/b/a GeneMachines. (Incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 3, 2003.

10.1	Trademark License Agreement, dated December 9, 2002, by and between Harvard Bioscience, Inc. and President and Fellows of Harvard College. (Certain portions of this document have been omitted pursuant to an application for confidential treatment filed with the Securities and Exchange Commission. The omitted portions have been filed separately with the Securities and Exchange Commission.)
99.1	Sarbanes-Oxley Act of 2002, Section 906-Certification of Chief Executive Officer
99.2	Sarbanes-Oxley Act of 2002, Section 906-Certification of Chief Financial Officer

(b) Reports on Form 8-K

1. Form 8-K filed March 3, 2003 – reporting the signing of an Asset Purchase Agreement on February 28, 2003 among Genomic Solutions (a wholly owned subsidiary) and Genomic Instrumentation Services, Inc. d/b/a GeneMachines.
2. Form 8-K filed March 25, 2003 – reporting the completion of the acquisition of Genomic Instrumentation Services, Inc., d/b/a GeneMachines on March 12, 2003.
3. Form 8-K filed May 1, 2003 – furnishing the press release of Harvard Bioscience issued on April 30, 2003, announcing its financial results for the quarter ended March 31, 2003.

SIGNATURES

Pursuant to the requirements of Section 13 and 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by undersigned thereunto duly authorized.

HARVARD BIOSCIENCE, INC.

By: /s/ Chane Graziano
Chane Graziano
Chief Executive Officer

By: /s/ Susan Luscinski
Susan Luscinski
Chief Financial Officer

Date: May 14, 2003

Certification

I, Susan Luscinski, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Harvard Bioscience, Inc.;

2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;

3. Based on my knowledge, the consolidated financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:

a. designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;

b. evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this quarterly report (the "Evaluation Date"); and

c. presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a. all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this quarterly report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: May 14, 2003

/s/ Susan Luscinski
Susan Luscinski
Chief Financial Officer

Certification

I, Chane Graziano, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Harvard Bioscience, Inc.;

2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;

3. Based on my knowledge, the consolidated financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:

a. designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;

b. evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this quarterly report (the "Evaluation Date"); and

c. presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a. all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this quarterly report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: May 14, 2003

/s/ Chane Graziano
Chane Graziano
Chief Executive Officer

CONFIDENTIAL INFORMATION HAS BEEN OMITTED PURSUANT TO RULE 24b-2 UNDER THE SECURITIES EXCHANGE ACT OF 1934 AND HAS BEEN FILED SEPARATELY WITH THE COMMISSION. THE LOCATIONS OF THE OMITTED INFORMATION ARE INDICATED BY THE FOLLOWING NOTATION: **[OMITTED MATERIAL]**.

TRADEMARK LICENSE AGREEMENT

Effective this 19th day of December 2002, President and Fellows of Harvard College ("Harvard"), a charitable, non-profit corporation organized under the laws of the Commonwealth of Massachusetts, having its principal place of business in Cambridge, Massachusetts, and Harvard Bioscience, Inc. ("Harvard Bioscience"), a corporation organized under the laws of the State of Delaware, having its principal place of business in Holliston, Massachusetts, hereby agree as follows:

1. Background. Harvard is the oldest university in the United States and comprises several schools, including an undergraduate college, as well as the Medical, Dental, Public Health, Law, Divinity, Business, Design, and Education schools, the Graduate School of Arts and Sciences, and the John F. Kennedy School of Government. The Harvard Medical School was established in 1782. For more than 200 years, the Harvard Medical School, together with its affiliated hospitals, has been widely regarded as a preeminent institution for medical education, health care, and research.

Harvard is the owner of its famous HARVARD name and mark and holds numerous United States federal trademark registrations and international trademark registrations for the HARVARD name and mark and other HARVARD-formative marks. Throughout its history, Harvard has used

the HARVARD name and mark to identify its educational, medical, health care, and research services, purposes and mission.

Harvard Bioscience is a corporation engaged in the business of designing, manufacturing, selling and/or offering for sale products and services for scientific research, industrial applications and OEM applications. Harvard Bioscience was formerly known as the Harvard Apparatus Company and as Harvard Apparatus, Inc., and is the successor to a corporation formed in or about 1903 by Dr. William T. Porter, a professor at the Harvard Medical School.

Currently pending in the United States District Court, District of Massachusetts, is Civil Action No. 00-12625, *President and Fellows of Harvard College v. Harvard Bioscience, Inc.*, in which the parties disagree whether the uses by Harvard Bioscience of HARVARD-formative marks are lawful. The parties agree that their mutual interest calls for a settlement of this litigation on the terms set out below.

The parties acknowledge that a license, implied or otherwise, from Harvard to Harvard Bioscience has been in effect since 1903, under which Harvard Bioscience has used the mark HARVARD APPARATUS and certain HARVARD-formative product names. The parties wish to confirm that license and to agree to the following terms by which Harvard Bioscience may continue those and other uses of the HARVARD name and mark, as set forth in this Trademark License Agreement (this "Agreement").

One purpose of this Agreement is to set forth the distinct ways in which Harvard Bioscience may use the marks HARVARD APPARATUS and HARVARD BIOSCIENCE, respectively. As the paragraphs below provide, Harvard Bioscience may use HARVARD

BIOSCIENCE only as its company name, and for communications in its corporate capacity, for example, with its former, current and prospective investors and employees, its sources of finance, its service providers, its vendors, or government agencies. By contrast, HARVARD APPARATUS may be used, in addition to the above uses, in connection with the sale of products and services, for example, on products, catalog covers and in communications with customers. The parties understand that in some instances no bright line separates the two respective uses and that Harvard Bioscience may, due either to unavoidable circumstances or inadvertence, use HARVARD BIOSCIENCE in a context where only the use of HARVARD APPARATUS is appropriate under this Agreement, or vice versa. While such misuse is not a basis for termination of this Agreement, Harvard Bioscience will at all times make every effort to use the licensed marks in compliance with those paragraphs below that expressly govern Harvard Bioscience's use of those marks.

2. Grant of License. For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Harvard hereby grants to Harvard Bioscience, its affiliates and divisions, a worldwide, royalty- free, nonexclusive, license to use the HARVARD name and mark only in the form of HARVARD APPARATUS and/or HARVARD BIOSCIENCE (together, the "Licensed Marks") and in the other forms provided below, and only in accordance with this Agreement, provided that the following conditions are satisfied**:**

a. Harvard Bioscience may use HARVARD BIOSCIENCE only as its company name and only in connection with the business of designing, manufacturing, selling and/or offering for sale products and services for scientific research, industrial and OEM applications. Such applications

include, by way of example, usages related to the physiological, pharmaceutical, biological, chemical, physical, environmental, food and beverage and medical sciences, and those products and services within Harvard Bioscience's natural area of expansion as practiced by companies comparable to Harvard Bioscience (the "Field"). Harvard Bioscience may use HARVARD BIOSCIENCE only for purposes of communications with former, current or prospective investors and employees, sources of finance, its service providers, its vendors, or government agencies, and others in its corporate capacity, including, for example, on stationery for correspondence in its corporate capacity or directed to actual or prospective investors and government agencies, and on business cards; annual reports and other materials provided to investors; filings with the Securities Exchange Commission and other regulatory agencies; deeds and/or leases of real property, loan instruments, contracts, and any other document or medium in which the legal name of the corporation is required to be used; and press releases and other communications with print, broadcast or other news media relating to corporate acquisitions, investments, financing and other corporate matters. Harvard Bioscience may similarly use HARVARD BIOSCIENCE as part of the identification of its current and future divisions, affiliates

and related companies, such as “Warner Instruments, a Harvard Bioscience Company,” or “Warner Instruments, a Division of Harvard Bioscience, Inc.” Harvard Bioscience may maintain a website at its existing Internet address, www.harvardbioscience.com, all content of which, whether directed to customers or to investors, shall be subject to this Agreement. Harvard Bioscience may not, however, use HARVARD BIOSCIENCE in connection with the sale or offering for sale of goods or services or in communications with customers or the general public unless such communication is for corporate

purposes not relating to sales of products or services. For example, Harvard Bioscience may not use HARVARD BIOSCIENCE on catalogs, advertisements, marketing or promotional materials, products, packaging, trade show banners, stationery for use in correspondence with customers, on sales invoices, press releases or other communications relating to its sales of products, except as provided in paragraphs 2(a) and 2(b).

b. Harvard Bioscience may use HARVARD APPARATUS in connection with the sale or offering for sale of products and services in the Field (the “Licensed Goods and Services”). When using HARVARD APPARATUS in this manner, Harvard Bioscience may refer to “Harvard Bioscience, Inc.” to indicate the legal name of the corporation responsible for the offering. Such reference to “Harvard Bioscience, Inc.” may appear up to several times in any multi-page publication, such as a catalog or brochure, and must be inconspicuous relative to the use therein of HARVARD APPARATUS. For example, in a catalog or brochure, a reference to “Harvard Bioscience, Inc.” may appear only in type not larger or more prominent than that used for the general text or advertising copy within which “Harvard Bioscience” is proposed to appear. Harvard Bioscience may also use HARVARD APPARATUS in all of the ways it may use HARVARD BIOSCIENCE under Paragraph 2(a).

c. Harvard Bioscience may use the HARVARD name and mark for the following products, as part of their product names, which have previously been in use (“Licensed Product Names”): Harvard Pump, Harvard 22 (and other numbers), Harvard Syringe Pump, Harvard PHD Pump, Harvard PHD 2000 Syringe Pump, Harvard Peristaltic Pump, Harvard Mechanical Syringe Pump, Harvard Mechanical Peristaltic Pump, Harvard Shuttle Pump, Harvard Ventilator, Harvard

Spirometer, Harvard Stimulator, Harvard Biograph, Harvard Chart Recorder, Harvard Oscillograph, Harvard Electrophysiological Teaching Unit, Harvard Kymograph, Harvard Indirect Rat Tail Blood Pressure System, Harvard Pulsatile Blood Pumps, Harvard Microdialysis Probes, Harvard Microelectrode Puller, Harvard Clark Capillary Glass, Harvard Thermocirculator, Harvard Stronghold, Harvard CPK, Harvard Clamps, and Harvard Connectors. Harvard Bioscience may not use the HARVARD name and mark, other than in the form of HARVARD APPARATUS, as part of any product name not on the aforementioned list unless Harvard Bioscience obtains the prior written approval to do so from Harvard’s Office of Technology and Trademark Licensing. Licensed Product Names shall be used only in their entirety and only in the exact form in which they appear on this list (for example, “Harvard Pump” or “Harvard Syringe Pump” or “Harvard Mechanical Syringe Pump”), except that a Licensed Product Name may be followed by numbers or letters denoting a new or updated version or series (for example, “Harvard Pump 2” or “Harvard Pump 2003”), or modified by a descriptive term (for example, “Harvard 2 Dual Syringe Pump” or “Harvard Mechanical Compact Syringe Pump.) The use by Harvard Bioscience of the Licensed Product Names shall conform to the font limitations of paragraph 3(a). Harvard Bioscience shall not otherwise use the HARVARD name and mark, alone or in combination with words other than APPARATUS or BIOSCIENCE.

d. Harvard Bioscience may include in its catalogs, its website, and in other materials a statement that Harvard Bioscience is using the Licensed Marks and Licensed Product Names pursuant to this Agreement, in substantially the following form: “HARVARD is a registered trademark of Harvard University. The mark HARVARD APPARATUS [or HARVARD

BIOSCIENCE] [or HARVARD as part of a product name] is being used pursuant to a license agreement between Harvard University and Harvard Bioscience, Inc.” If Harvard Bioscience wishes to use such a statement in any other form, Harvard Bioscience shall submit the art layout and placement information for such a statement to Harvard for prior written approval, which approval shall not be unreasonably withheld, before the statement may be used in any given medium (e.g., catalog, advertisement, website). Once approval has been obtained for use in a given medium, Harvard Bioscience may continue such use in that medium in the approved format for so long as this Agreement remains in force and effect. Once a format is submitted to Harvard for approval Harvard will have 10 business days to approve or disapprove the format. If no written response is received within 10 business days, the format will be deemed approved

e. Harvard Bioscience shall not represent or imply, in its catalogs, advertisements or otherwise, that it is affiliated with any educational or research institution or enterprise, except that, if Harvard Bioscience enters into an agreement or business relationship with any educational or research institution, including but not limited to the licensing of technology, joint research and development, or product validation or testing, Harvard Bioscience may make truthful statements regarding such agreement. Harvard Bioscience shall not, however, be prohibited from making truthful statements regarding its history, including its connection with the Harvard Apparatus Company founded by Professor William T. Porter and its use of the mark HARVARD APPARATUS prior to this Agreement.

f. Within 18 months of the date of this Agreement, Harvard Bioscience will cease to use or distribute any catalogs, stationery, labels, business cards or other materials that do not comply with paragraphs 2(a)-(d) hereof. **[OMITTED MATERIAL]**

g. So long as this Agreement remains in effect, Harvard agrees that it will not use the mark HARVARD APPARATUS, that it will not use the mark HARVARD BIOSCIENCE other than in connection with bioscience-related activities or offerings at Harvard, and that it will not license or otherwise authorize any third party to use the HARVARD name and mark in the form of either of the Licensed Marks.

h. For purposes of this paragraph 2, “affiliates” shall mean any members of Harvard Bioscience’s “affiliated group” as defined in Internal Revenue Code § 1504.

3. Form of Use.

a. Harvard Bioscience agrees to use the Licensed Mark HARVARD BIOSCIENCE solely in a form wherein (i) all letters are in the same font and color (ii) all letters of the word BIOSCIENCE are in a font size no smaller than ½ the font size of the word HARVARD; (iii) the word BIOSCIENCE always follows the word HARVARD immediately (either immediately after or immediately below); and (iv) neither the word HARVARD nor the mark HARVARD BIOSCIENCE appears in any of the following fonts: Bembo, Bodoni, Caslon, Centaur, Century Schoolbook, Garamond, Goudy, ITC New Baskerville, ITC Galliard, Linotype Didot, Minion, New Times Roman, Palatino (collectively, the “Representative Serif Fonts”), or any font similar thereto, or in, surrounded, accentuated or bordered by the color crimson, **[OMITTED MATERIAL].**

b. Harvard Bioscience agrees to use the Licensed Mark HARVARD APPARATUS solely in a form wherein (i) all the letters of APPARATUS are in a font size no smaller than ½ the font size of the letters HARVARD; (ii) the word APPARATUS always follows the word HARVARD immediately (either immediately after or immediately below); and (iii) neither the word HARVARD nor the mark HARVARD APPARATUS appears in any of the Representative Serif Fonts or any font similar thereto, or in, surrounded, accentuated or bordered by the color crimson. Nothing in this Agreement shall prevent Harvard Bioscience from using the color red in connection with or for the Licensed Mark HARVARD APPARATUS.

c. Harvard Bioscience agrees to use the Licensed Product Names solely in a form wherein (i) all letters are in the same font, color and point size; (ii) the word HARVARD is not presented more prominently than the other element or elements of the product name; and (iii) neither the word HARVARD nor any other element or elements of the product name appear in any of the Representative Serif Fonts, or any fonts similar thereto (except that such word or elements may appear in any such font within a general text or advertising copy printed entirely in that font), or in, surrounded, accentuated or bordered by the color crimson.

4. Term of the License. This Agreement shall continue in effect unless and until it is terminated by one of the parties in accordance with paragraph 10 hereof.

5. Ownership of Marks. Harvard warrants that it has the authority to grant the rights hereunder and that such grant is in compliance with applicable law. Harvard Bioscience acknowledges Harvard’s ownership of the HARVARD name and mark and agrees that it will not do anything inconsistent with such ownership. Harvard acknowledges Harvard Bioscience’s rights to

use the Licensed Marks and Licensed Product Names as set forth in this Agreement and agrees that it will not do anything inconsistent with such rights. All use of the Licensed Marks and Licensed Product Names by Harvard Bioscience shall inure to the benefit of and be on behalf of Harvard. Harvard Bioscience hereby transfers to Harvard any right, title, interest, and goodwill, if any, in all marks containing the word HARVARD, except for Harvard Bioscience’s right to use the Licensed Marks and Licensed Product Names under this Agreement. Harvard Bioscience agrees that nothing in this Agreement shall give Harvard Bioscience any right, title or interest in the HARVARD name and mark other than the right to use the Licensed Marks and Licensed Product Names in accordance with this Agreement. Harvard shall have the sole right, but not obligation, to register the marks HARVARD APPARATUS and HARVARD BIOSCIENCE worldwide at Harvard’s expense, or shall do so upon request by Harvard Bioscience at Harvard Bioscience’s expense. Upon request by and at the expense of Harvard Bioscience, Harvard shall make reasonable efforts to register the Licensed Marks in any country so requested by Harvard Bioscience.

6. Quality Standards and Maintenance. Harvard Bioscience agrees that the quality of all of the Licensed Goods and Services will be maintained at a commercially reasonable level and will comply with the requirements of any federal, state and other governmental regulatory agencies responsible for assuring the quality and fitness of such products. The parties agree that, without limitation, the quality of Licensed Goods and Services as of the date of this Agreement is at a commercially reasonable level of quality. Further, and upon reasonable notice to Harvard Bioscience, which shall not be less than 10 days, Harvard shall have the right, at its own expense and no more than once in a calendar year, to conduct at Harvard Bioscience’s facilities an examination of

specimens of its use of the Licensed Marks and of products manufactured by or for it, and to obtain from Harvard Bioscience information and documentation, as would enable Harvard to determine that the quality of the Licensed Goods and Services provided by Harvard Bioscience is maintained in accordance with this paragraph throughout the term of this Agreement.

7. Unauthorized Use by Third Parties of the HARVARD Name and Mark. Harvard Bioscience may notify Harvard in writing of any unauthorized use of the HARVARD name and mark by others engaged in the Field in the United States. Harvard has the right to bring, defend, resolve, and control, at its expense, any and all claims and disputes based on unauthorized use of the HARVARD name and mark. In the event that Harvard does not pursue judicial relief against any third party for any claim of unfair competition or false designation of origin that may cause confusion, mistake or deception with respect to Harvard Bioscience’s use of the Licensed Marks for the Licensed Goods and Services within 120 days after receiving notice from Harvard Bioscience of such a claim, Harvard Bioscience, in its sole discretion, may bring an action directly, at its own expense. Any damages, attorney fees, or costs recovered by Harvard Bioscience in such action shall be retained by Harvard Bioscience. Harvard and Harvard Bioscience shall cooperate in good faith with each other in connection with prosecution of claims by either party against third parties for any claim of trademark infringement or for any claim of unfair competition and false designation of origin that may cause confusion, mistake or deception with respect to Harvard Bioscience’s use of the Licensed Marks for the Licensed Goods.

8. Indemnity. Harvard Bioscience shall indemnify Harvard for all claims arising from Harvard Bioscience's use of the Licensed Marks or Licensed Product Names or from any acts, omissions or statements by Harvard Bioscience.

9. Non-Assignment, Sublicenses by Harvard Bioscience. Neither this Agreement nor the Licensed Marks or Licensed Product Names may be assigned by Harvard Bioscience, except that Harvard Bioscience may assign this Agreement in connection with a sale of all or substantially all the business and goodwill associated with the products sold under the HARVARD APPARATUS mark. Said sale may be in the form of an asset or stock sale or any combination thereof. Harvard Bioscience may pledge or hypothecate this Agreement, but no third party may use the Licensed Marks or the Licensed Product names except in compliance with this Agreement. Subject to the foregoing, this Agreement is binding upon the parties, their successors, assigns, heirs, executors and administrators. Notwithstanding any provision of this Agreement, Harvard Bioscience may not enter into any transaction that would result in more than one person or entity purporting to have rights to use the mark HARVARD BIOSCIENCE. Harvard Bioscience may not sublicense its right to use the mark HARVARD BIOSCIENCE. Harvard Bioscience may sublicense its right to use the mark HARVARD APPARATUS under this Agreement to third parties solely for use within the Field, provided that any such sublicensee shall agree in writing to be bound by the terms of this Agreement and Harvard is promptly provided with a copy of the signed sublicense.

10. Termination.

a. Harvard Bioscience may terminate this Agreement immediately for any reason upon thirty (30) days written notice to Harvard.

b. This Agreement shall terminate when Harvard Bioscience ceases to use both Licensed Marks for a period of twenty-four (24) consecutive months, or upon a liquidation or dissolution of Harvard Bioscience that results in the cessation of use of both Licensed Marks. Further, Harvard Bioscience's right to use either of the Licensed Marks shall terminate when Harvard Bioscience ceases to use such Licensed Mark for a period of twenty-four (24) consecutive months.

c. Harvard may terminate this Agreement (1) if any of Harvard Bioscience's officers is convicted of a felony in connection with the operation of Harvard Bioscience's business and such officer remains an officer more than 60 days after Harvard, in a written notice to Bioscience, cites such conviction as a basis for termination; or (2) for material breach of this Agreement, provided that, in the case of material breach, Harvard Bioscience shall have sixty (60) days written notice to use reasonable business practices to cure and provided further that in the event the breach involves Harvard Bioscience's failure to maintain the quality of Licensed Goods and Services, it shall have one hundred twenty (120) days written notice to use reasonable business practices to cure. The cure of any material breach by Harvard Bioscience of this Agreement shall not require the recall or return of any written materials, packaging or product, which have been sent to third parties, including, without limitation, customers of Harvard Bioscience prior to Harvard's notice of breach. The following shall not constitute material breach: (1) the failure to notify Harvard of a third party's unauthorized use of the HARVARD name and mark pursuant to paragraph 7 hereof; and (2) the failure to notify Harvard of a change of address pursuant to paragraph 15 hereof. If Harvard Bioscience fails to cure a material breach, this Agreement shall terminate on sixty (60) days further written notice If the parties disagree as to whether a material breach has been cured, the matter shall

be submitted to binding arbitration in accordance with paragraph 16 of this Agreement, in which event this Agreement shall not be terminated unless and until a final decision is rendered in favor of Harvard. In the event of such arbitration, Harvard Bioscience shall cooperate with Harvard in submitting the matter to the arbitrator(s) as speedily as possible.

d. **[OMITTED MATERIAL]**

11. Phase-Out Upon Termination. Upon termination of this Agreement, Harvard Bioscience shall, within twelve (12) months from the effective date of the termination, discontinue all use of the Licensed Marks and Licensed Product Names and any terms confusingly similar thereto, shall delete the same from its corporate or business name, and shall destroy all materials and papers, other than corporate records, upon which any Licensed Mark or Licensed Product Name appears. Harvard Bioscience agrees that, within twelve (12) months of termination, all rights in the HARVARD name and mark and the associated goodwill shall be and remain the property of Harvard and that Harvard shall, no sooner than ten years after termination, have the right, unrestricted by this Agreement, to license the HARVARD name and mark in the form of the Licensed Marks and Licensed Product Names.

12. **[OMITTED MATERIAL]**

13. Performance of Further Acts. Harvard Bioscience agrees to perform all further acts and to execute and deliver any additional documents which may be reasonably required by Harvard to carry out the provisions of this Trademark Licensing Agreement, including acts to perfect trademark registrations or assignments in the name of Harvard. In the event that Harvard notifies Harvard Bioscience in writing that a use of the Licensed Marks or Licensed Product

Names does not comply with the provisions of this Agreement, Harvard Bioscience will correct such non-complying use with reasonable promptness and confirm as much in writing.

14. No Franchise or Agency. Both parties agree that this Agreement is a trademark /trade name license only, and neither party intends to create any franchise relationship hereby. Harvard Bioscience shall continue to have full responsibility for and control over all operations of its business, and the provisions relating to the nature and quality of goods or services sold by Harvard Bioscience and the manner in which Harvard Bioscience may display the Licensed Marks and Licensed Product Names are included herein solely for the purpose of protecting the integrity, reputation and goodwill associated with the Licensed Marks and Licensed Product Names. Nothing herein shall be construed as placing the parties in the relationship of franchisor or franchisee,

employer or employee, or principal or agent. Neither party shall have the power to obligate or bind the other in any manner except as otherwise expressly provided by this Agreement.

15. Notices, Timing and Form. All written notices (or other communications) relating to this Agreement shall be deemed to be sufficiently given when sent by United States Postal Service – certified mail with signed receipt (or otherwise provably received by signed receipt from the recipient) addressed to the party for whom intended at the following addresses, or at the last known address. Each party shall promptly notify the other party in writing of any change of the address to which notices under this paragraph should be sent. The effective date of such notice shall be the date the notice is received.

(a) To Harvard:

Harvard University
Office of the General Counsel
Holyoke Center, Suite 980
1350 Massachusetts Avenue
Cambridge, Massachusetts 02138-3834
and
Harvard University
Office of Technology & Trademark Licensing
Holyoke Center, Suite 727
1350 Massachusetts Avenue
Cambridge, Massachusetts 02138
and
Bromberg & Sunstein LLP
125 Summer Street
Boston, MA 02110

(b) To Harvard Bioscience:

President
Harvard Bioscience, Inc.
84 October Hill Road
Holliston, MA 01746
and
Goodwin Procter LLP
Exchange Place
Boston, MA 02109
and
Dwyer & Collora LLP
600 Atlantic Avenue
Boston, MA 02210

15. Prior Agreements, Amendments, Severability. This Agreement is the entire agreement of the parties, and supersedes all prior oral or written agreements or understandings of the parties with respect to the subject matter hereof. This Agreement may be amended only by a writing signed by the party to be charged. If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

16. Governing Law. This Agreement shall be construed and enforced in accordance with the laws of the United States and the Commonwealth of Massachusetts. Any dispute arising under or involving this Agreement shall be submitted to binding arbitration before JAMS/Endispute in Boston, Massachusetts, or, if JAMS/Endispute is no longer in business, before a mutually acceptable arbitrator or arbitration service in Boston, or, failing such agreement, before the American Arbitration Association in Boston. Any such arbitration shall commence upon written demand of one of the parties, and shall be determined by a single arbitrator sitting in accordance with the Rules of Commercial Arbitration of the American Arbitration Association then in force at its office in Boston, Massachusetts. The decision of the arbitrator shall be final and binding. The expense of the arbitration shall be shared equally by the parties and each party shall bear its own attorneys fees, unless the arbitration award states that the expenses and fees shall be otherwise assessed. Any such arbitration shall take place in or near Boston, Massachusetts.

IN WITNESS, the parties hereto have caused this Agreement to be executed in duplicate by their authorized officers whose names and signatures are set out below.

HARVARD:

President and Fellows of Harvard College

Dated: December 19, 2002

/s/ Joyce Brinton

By: Joyce Brinton
Director, Office of Technology and Trademark Licensing

Commonwealth of Massachusetts
Middlesex, ss. County December 19, 2002

Then personally appeared the above-named Joyce Brinton, duly authorized Director of the Office of Technology and Trademark Licensing of the President and Fellows of Harvard College, and acknowledged the foregoing instrument to be her free act and deed, before me,

[Notary Seal]

/s/ Jeremy R. Jenkins
Notary Public
My commission expires: February 3, 2006

HARVARD BIOSCIENCE:

Harvard Bioscience, Inc.

Dated: December , 2002

/s/ David Green
By: David Green
Title: President

Middlesex, ss.

Then personally appeared the above-named David Green, duly authorized President of Harvard Bioscience, Inc., and acknowledged the foregoing instrument to be his free act and deed, before me,

/s/ Alexia Armstrong
Notary Public
My commission expires: 9/11/09

Exhibit 99.1

Certification

The undersigned officer of Harvard Bioscience, Inc. (the "Company") hereby certifies that the Company's quarterly report on Form 10-Q for the quarterly period ended March 31, 2003 (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This certification is provided solely pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed to be a part of the Report or "filed" for any purpose whatsoever.

Date: May 14, 2003

Name: /s/ Chane Graziano
Chane Graziano

Title: Chief Executive Officer

Exhibit 99.2

Certification

The undersigned officer of Harvard Bioscience, Inc. (the "Company") hereby certifies that the Company's quarterly report on Form 10-Q for the quarterly period ended March, 31, 2003 (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This certification is provided solely pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed to be a part of the Report or "filed" for any purpose whatsoever.

Date: May 14, 2003

Name: /s/ Susan Luscinski
Susan Luscinski

Title: Chief Financial Officer