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 September 30, 2002

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 Indentification 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.

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 November 11, 2002
Common Stock Outstanding 29,993,218

HARVARD BIOSCIENCE, INC.
Form 10-Q
For the Quarter Ended September 30, 2002

INDEX

PART I. FINANCIAL INFORMATION

Item 1. Consolidated Financial Statements.

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

	9/30/02 (unaudited)	12/31/01
Current assets:		
Cash and cash equivalents	$ 26,459	$ 29,386
Trade accounts receivable, net	7,461	6,490
Other receivables and other assets	538	1,114
Inventories	6,891	5,973
Catalog costs	170	244
Prepaid expenses	905	700
Deferred tax assets	1,741	846
Total current assets	44,165	44,753
Property, plant and equipment, net	3,985	3,506
Other assets:		
Catalog costs, less current portion	—	60
Deferred tax asset	256	256
Goodwill	19,816	20,265
Other intangibles, net	15,049	12,930
Other assets	1,621	592
Total other assets	36,742	34,103
Total assets	$ 84,892	$ 82,362
Current liabilities:		
Current installments of long-term debt	$ 1,012	$ 3,894
Trade accounts payable	3,108	3,100
Deferred revenue	618	600
Accrued income taxes payable	1,892	1,442
Accrued expenses	3,067	2,912
Other liabilities	222	208
Total current liabilities	9,919	12,156
Long-term debt, less current installments	74	637
Deferred income tax liabilities	2,751	2,757
Total long-term liabilities	2,825	3,394
Total liabilities	12,744	15,550
Stockholders' equity:		
Common stock, par value $.01 per share, 80,000,000 shares authorized; 31,458,180 and 31,339,373 shares issued and 26,797,396 and 26,678,589 shares outstanding at September 30, 2002 and December 31, 2001, respectively	315	313
Accumulated deficit	(81,879)	(83,588)
Additional paid-in-capital	154,482	153,293

Accumulated other comprehensive income (loss)	837	(789)
Notes receivable from officers	(939)	(1,749)
Treasury stock, 4,660,784 common shares, at cost	(668)	(668)
Total stockholders' equity	72,148	66,812
Total liabilities and stockholders' equity	$ 84,892	$ 82,362

See accompanying notes to unaudited consolidated financial statements.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2002	2001	2002	2001
Product revenues	$ 12,619	$ 10,351	$ 37,512	$ 28,576
Research revenues	178	292	977	385
Total revenues	12,797	10,643	38,489	28,961
Cost and expenses:				
Cost of product revenues	6,582	5,218	18,987	14,442
General and administrative expense	1,894	1,756	5,926	5,088
Sales and marketing expense	1,644	1,346	4,941	3,388
Research and development	1,013	1,076	3,038	2,124
Stock compensation expense	315	658	971	2,199
In-process research and development expense	—	—	—	5,447
Restructuring expense	632	—	632	—
Amortization of goodwill and other intangibles	469	565	1,081	1,052
Operating income (loss)	248	24	2,913	(4,779)
Other (expense) income:				
Foreign currency gain (loss)	76	182	205	(55)
Interest expense	(13)	(2)	(83)	(4)
Interest income	106	256	363	1,209
Other	(5)	22	(39)	30
Other income, net	164	458	446	1,180
Income (loss) before income taxes	412	482	3,359	(3,599)
Income taxes	494	163	1,650	1,175
Net income (loss)	$ (82)	$ 319	$ 1,709	$ (4,774)
Net income (loss) per share:				
Basic and diluted	$ 0.00	$ 0.01	$ 0.06	$ (0.19)
Weighted average common shares:				
Basic	26,510,579	26,146,645	26,483,440	25,636,425
Diluted	26,510,579	26,905,190	27,028,797	25,636,425

See accompanying notes to unaudited consolidated financial statements.

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

	Nine Months Ended September 30,	
	2002	2001
Cash flows from operating activities:		
Net income (loss)	$ 1,709	$ (4,774)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Stock compensation expense	971	2,199
In-process research and development expense	—	5,447
Depreciation	709	371

Amortization of catalog costs	302	523
Provision for bad debts	3	4
Amortization of goodwill and other intangibles	1,081	1,052
Deferred income taxes	(852)	(697)
Changes in operating assets and liabilities, net of effects of business acquisitions:		
Increase in accounts receivable	(372)	(1,182)
(Increase) decrease in other receivables	714	(147)
Increase in inventories	(311)	(541)
(Increase) decrease in prepaid expenses and other assets	(118)	15
Increase in other assets	(993)	(38)
Decrease in trade accounts payable	(422)	(291)
Increase in accrued income taxes payable	338	1,029
Decrease in accrued expense	(373)	(121)
Decrease in other liabilities	(601)	(418)
Net cash provided by operating activities	1,785	2,431
Cash flows from investing activities:		
Additions to property, plant and equipment	(909)	(1,245)
Additions to catalog costs	(164)	(355)
Acquisition of businesses, net of cash acquired	(1,218)	(11,614)
Net cash used in investing activities	(2,291)	(13,214)
Cash flows from financing activities:		
Repayment of notes receivable from officers	886	—
Proceeds from short-term debt	—	—
Repayments of short-term debt	(3,260)	(2)
Proceeds from long-term debt	—	38
Repayments of long-term debt	(570)	(500)
Net proceeds from issuance of common stock	144	5,653
Net cash provided by (used in) financing activities	(2,800)	5,189
Effect of exchange rate changes on cash and cash equivalents	379	(67)
Decrease in cash and cash equivalents	(2,927)	(5,661)
Cash and cash equivalents at beginning of period	29,386	35,817
Cash and cash equivalents at end of period	$ 26,459	$ 30,156
Supplemental disclosures of cash flow information:		
Cash paid for interest	$ 114	$ 5
Cash paid for income taxes	$ 1,398	$ 490
Non cash investing and financing activity:		
Common stock issued for acquisition	—	$ 9,928

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 as of September 30, 2002, and for the three and nine month periods ended September 30, 2002 and September 30, 2001, 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 financial statements should be read in conjunction with the consolidated financial statements for the year ended December 31, 2001 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 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, 2001, filed with the SEC.

2. Recently Issued Accounting Pronouncements

In June 2001, Statement of Financial Accounting Standards (SFAS) No. 143, *"Accounting for Assets 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. Accordingly, the Company will adopt SFAS No. 143 on January 1, 2003. The Company does not expect that the adoption of this statement will have a material impact on its 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. 4 and 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 does not believe the impact of adopting SFAS No. 145 on January 1, 2003 will have a material impact on its 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. Early application is encouraged; however, previously issued financial statements may not be restated. The Company does not believe that the adoption of this statement on January 1, 2003 will have a material impact on its consolidated results of operations or financial position.

3. Acquisitions

On July 1, 2002, Biochrom Ltd, a United Kingdom subsidiary of the Company, acquired all the stock of Walden Precision Apparatus ("WPA"), a designer, manufacturer and marketer of low cost diode-array spectrophotometers. Cash consideration of $1,551,000, net of $90,000 cash received, (including approximately $186,000 of acquisition related expenses) was paid for the stock. As of September 30, 2002, cash consideration of $280,000 and acquisition costs of $142,000 have not been paid. The Company has not finalized the allocation of purchase price as of September 30, 2002. An estimate of the allocation was prepared and has been included as part of these financial statements. The preliminary

allocation of the purchase price is as follows: $1,712,000 to goodwill and other intangibles, $110,000 to property, plant and equipment, current assets of $691,000 and liabilities assumed of $872,000.

The results of operations and the estimated fair value of the assets acquired and liabilities assumed for WPA are included in the consolidated operating results of Harvard Bioscience, Inc. from the date of acquisition.

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. During the second quarter of 2002, the Company completed the implementation impairment review as required. The review concluded there was no impairment of goodwill at the time of implementation.

With the adoption of SFAS No. 142, the Company ceased amortization of goodwill as of January 1, 2002. The Company does not have any other intangible assets with indefinite lives. The following table presents the quarterly, nine month, and annual results of the Company assuming SFAS 142 was adopted on January 1, 1999.

(in thousands, except per share amounts)	For Three Months Ended September 30,		For Nine Months Ended September 30,		For Years Ended December 31,		
	2002	2001	2002	2001	2001	2000	1999
Net income (loss)	$ (82)	$ 319	$ 1,709	$ (4,774)	$ (5,208)	$ (50,006)	$ (29,577)
Add back: goodwill amortization, net of tax	—	217	—	499	811	459	303
Adjusted net income (loss)	$ (82)	$ 536	$ 1,709	$ (4,275)	$ (4,397)	$ (49,547)	$ (29,274)
Basic and diluted earnings per share:							
Net income (loss)	$ 0.00	$ 0.01	$ 0.06	$ (0.19)	$ (0.20)	$ (6.25)	$ (5.28)
Goodwill amortization, net of tax	—	0.01	—	0.02	0.03	0.06	0.05
Adjusted net income (loss)	$ 0.00	$ 0.02	$ 0.06	$ (0.17)	$ (0.17)	$ (6.19)	$ (5.23)

Intangible assets consist of the following:

(in thousands)	September 30, 2002		December 31, 2001	
	Gross Carrying Value	Accumulated Amortization	Gross Carrying Value	Accumulated Amortization
Amortizable intangible assets:				
Existing technology	$ 15,096	$ 1,577	$ 11,967	$ 569
Tradename	1,763	241	1,680	157
Patents	9	1	9	—
Total Amortizable Intangible Assets	$ 16,868	$ 1,819	$ 13,656	$ 726
Unamortizable intangible assets:				
Goodwill	$ 19,816	$ —	$ 22,377	$ 2,112
Total Unamortizable Intangible Assets	$ 19,816	$ —	$ 22,377	$ 2,112

On July 1, 2002, the Company acquired intangible assets of approximately $1.7 million in connection with the acquisition of Walden Precision Apparatus ("WPA") consisting of approximately $1.2 million of amortizable assets and $0.5 million of goodwill (including approximately $0.2 million of acquisition

related expenses). Intangible asset amortization expense was $469,000 and $1,081,000 for the three and nine month periods ended September 30, 2002, respectively. As a result of the adoption of SFAS No. 142, there have been no changes to amortizable lives or methods.

Amortization expense of existing amortizable intangible assets is estimated to be $1.5 million for the year ending December 31, 2002 and $1.6 million for each of the years ending December 31, 2003, 2004, 2005 and 2006.

5. 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 September 30,		Nine Months Ended September 30,	
	2002	2001	2002	2001
	(in thousands)			
Weighted average common shares outstanding	26,511	26,147	26,483	25,636
Weighted average common equivalent shares due to stock options	—	758	546	—
	26,511	26,905	27,029	25,636

For the three months ended September 30, 2002 and for the nine months ended September 30, 2001, common stock equivalent shares of 455,415 and 567,104 were not included in the computation of diluted earnings per share because to do so would have been antidilutive.

6. Inventories

Inventories consist of the following:

	September 30, 2002	December 31, 2001
	(in thousands)	
Finished goods	$ 2,457	$ 2,050
Work in process	939	594
Raw materials	3,495	3,329
	$ 6,891	$ 5,973

7. Accounts Receivable

Accounts receivable consists of the following:

	September 30, 2002	December 31, 2001
	(in thousands)	
Trade accounts receivable	$ 7,563	$ 6,588
Allowance for doubtful accounts	(102)	(98)
	$ 7,461	$ 6,490

8. Comprehensive Income (Loss)

Accumulated other comprehensive income (loss), a component of stockholders' equity, consists solely of foreign currency translation. The components of total comprehensive income (loss) were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2002	2001	2002	2001
	(in thousands)			
Net income (loss)	$ (82)	$ 319	$ 1,709	$ (4,774)
Foreign currency translation adjustment	415	293	1,626	(124)
Comprehensive income (loss)	$ 333	$ 612	$ 3,335	$ (4,898)

9. 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 four promissory notes amounting to $1,547,950, to the Company. The promissory notes are due in September 2003, bear interest at an annual rate of 10% and 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 each of these officers. In February 2002, Mr. Green satisfied his obligations under these promissory notes by payment in full to the Company of the principal amount of the notes and accrued interest of $886,000.

10. Stock-based Compensation Plans

During the three and nine months ended September 30, 2002, the Company granted 109,000 and 812,000 incentive stock options and 10,000 and 110,500 non-qualified stock options, respectively, to employees. Stock options were granted at the fair value of the underlying shares at the date of grant and vest over a four year period. The weighted average exercise price of the stock options granted was $4.39 for the three months ended September 30, 2002 and $6.83 for the nine months ended September 30, 2002. Approximately 20,000 and 108,000 stock options were exercised and 22,000 and 39,000 stock options were cancelled during the three and nine months ended September 30, 2002, respectively.

11. Legal Proceedings

On December 26, 2000, Harvard University filed a lawsuit in U.S. District Court, District of Massachusetts alleging that our use of the "Harvard Bioscience" and "Harvard Apparatus" names infringes on Harvard University's trademarks. Harvard University is seeking both injunctive relief and monetary damages. The Company believes that these claims are without merit, and is vigorously defending against such claims. On April 10, 2001, the U.S. District Court, District of Massachusetts denied Harvard University's request for a preliminary injunction prohibiting the Company from using the name "Harvard Bioscience" and "Harvard Apparatus". The Court did issue an order directing the Company not to use the "Harvard" name in the color crimson or in a font similar to the font used by Harvard University. On May 6, 2002, the U.S. District Court, District of Massachusetts issued a partial summary judgement order against Harvard University regarding the Company's use of the name "Harvard Apparatus". The Company intends to continue to vigorously defend the remaining claims of Harvard University against the Company as it believes the claims are without merit.

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 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 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. The Company anticipates that it will move for confirmation of the arbitrator's decision in an appropriate court within the next 30 days, at which time Mr. Grindle may seek to vacate or otherwise challenge the arbitrator's decision.

12. Subsequent Events

On October 25, 2002, the Company completed its previously announced acquisition of Genomic Solutions Inc. All of the outstanding shares of Genomic Solutions common stock were converted into the right to receive an aggregate of $9,000,000 in cash and 3,200,000 shares of common stock, par value $0.01 per share, of the Company. The merger will be accounted for as a purchase transaction. The results of operations of Genomic Solutions will be included in the consolidated operating results of Harvard Bioscience, Inc. from the date of acquisition.

On November 12, 2002, the Company announced the approval by the Board of Directors of a Stock Repurchase Program which will allow for the repurchase of up to $5,000,000 of common stock of the Company during the next twelve months.

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 the availability of attractive acquisition candidates), the market demand and opportunity for our products, our estimates regarding our capital requirements, 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 potential 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 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 100 countries though our direct sales force, our 1,000 page catalog and several other specialty catalogs, and through our 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, primarily scientific instruments, in niche markets focused on the bottlenecks in drug discovery research.

- By having a broad product line we seek to reduce the risk of being dependent on a single technology in an industry characterized by very rapid technological change, and
- By having specialized products in niche markets we seek to avoid head-to-head competition with the major instrument companies.

New products are an important element in driving our growth. Our new products are either invented by us or acquired from other companies. Acquisitions are thus a core part of our growth strategy. 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 acquired products. The tools for drug discovery industry is very fragmented and thus there are many small niche companies that make attractive acquisition candidates.

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 based on independent appraisals using established valuation techniques. 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 28.5% 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 33.5% 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 have no alternative future use. The value assigned to in-process research and development was determined by independent appraisal 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 expenditure 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 37.5% to 43.5%. The forecasts used by the Company in valuing in-process research and development were based on assumptions the Company believes 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. The amounts allocated in 2001 to in-process research and development of $5,447,000 were expensed as of the acquisition dates.

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 an intangible asset with its carrying amount. If the carrying amount exceeds its fair value, an impairment loss shall be recognized in an amount equal to that 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 142, we were required to perform an initial impairment review of our goodwill effective January 1, 2002. During the second quarter of 2002, the Company completed the implementation impairment review. The review concluded there was no impairment of goodwill at the time of implementation.

Accounting for income taxes. We are required to project our annual effective tax rate in each of the jurisdictions in which we operate. This involves estimating 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 balances sheets. 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, 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 income tax benefits are allocated to stockholders' equity, the related valuation allowance must also 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 September 30, 2002, we have not established a valuation allowance as we believe that the deferred tax assets at September 30, 2002 will more likely than not be realized in the carryback and carryforward periods based on the criteria set forth in SFAS 109, *Accounting for Income Taxes*. We will 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 impact on the value of the Company's inventory and its reported operating results.

Results of Operations

Three months ended September 30, 2002 compared to three months ended September 30, 2001:

Revenues. Revenues increased $2,154,000, or 20%, to $12,797,000 in the third quarter of 2002 from $10,643,000 for the same period in 2001. Approximately $1.3 million of the increase, or 13%, represented the acquired revenues, the revenue stream of the acquired companies prior to acquisition, for the acquisitions made in 2001 and 2002. The balance of the increase was from existing businesses that introduced new products including new lines of spectrophotometers and plate readers, from existing businesses that introduced a new catalog at the end of the first quarter of 2002, and from the growth of the acquired companies as we leverage our infrastructure and expertise. Revenues for the third quarter of 2002 would have been approximately $12.4 million if our sales denominated in foreign currencies were translated into U.S. dollars using 2001 exchange rates, an increase of approximately 16% over the same period in 2001.

Cost of product revenue. Cost of product revenues increased $1,364,000 or 26%, to $6,582,000 in the third quarter of 2002 from $5,218,000 for the third quarter of 2001. As a percentage of product revenues, cost of product revenues for the third quarter of 2002 was higher by 1.8% compared to the same period

in 2001 due to a combination of a less favorable mix of sales direct to end users versus sales to distributors and a less favorable product mix.

General and administrative expense. General and administrative expense increased $138,000, or 8%, to $1,894,000 in the third quarter of 2002 from $1,756,000 for the same period in 2001 due primarily to acquisitions. As a percentage of revenues, general and administrative expense was 14.8% in the third quarter of 2002 compared to 16.5% for the same period in 2001. 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 $298,000, or 22%, to $1,644,000 in the third quarter of 2002 from $1,346,000 in the third quarter of 2001 due primarily to acquisitions made during 2001. Excluding the effect of acquisitions, sales and marketing expense increased approximately $97,000, or 7% in the third quarter of 2002. As a percentage of revenues, sales and marketing expense was 12.8% in the third quarter of 2002 compared to 12.6% for the same period in 2001..

Research and development expense. Research and development spending, which includes expenses related to research revenues, was $1,013,000 in the third quarter of 2002. Excluding acquired research and development programs, spending in the third quarter of 2002 was approximately $939,000 compared to $1,076,000 for the same period in 2001. During the first nine months of 2001, there were several significant development projects ongoing which related to both newly acquired technology and the existing business. These projects have now been substantially completed and consequently, excluding the effect of acquisitions made during 2001, research and development spending has decreased. As a percentage of revenues, research and development was 7.9% during the third quarter of 2002 compared to 10.1% for the same period in 2001. This lower level of spending is due to a combination of fewer expenses related to lower research revenues in the third quarter of 2002 compared to the third quarter of 2001, and also due to the effect of the acquisitions made in the fourth quarter of 2001 and the third quarter of 2002. These acquisitions have a lower research and development spend rate, at approximately 4%, of revenues.

Stock compensation expense. We recorded $315,000 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 September 30, 2002. In the three months ended September 30, 2001, we recorded stock compensation expense of approximately $658,000. We will recognize approximately $856,000 of additional expense over the remaining vesting life of the options.

Restructuring expense. During the third quarter of 2002, the Company recorded $632,000 in restructuring expense. Approximately $144,000 of this expense related to the re-alignment of expenses relative to the current revenue stream at our Union Biometrica subsidiary. The remaining $488,000 expense related to the consolidation of the Walden Precision Apparatus ("WPA") operations into our Biochrom operations. As planned at the time of the acquisition of WPA, this consolidation permitted the elimination of duplicative positions in the Biochrom and WPA operations. The restructuring expenses recorded for both Union Biometrica and Biochrom consisted entirely of termination costs for six personnel at Union Biometrica and nine personnel at Biochrom whose employment was terminated during the quarter ended September 30, 2002.

Amortization of intangibles. Amortization of intangibles, including amortization of acquired technology, was $469,000 in the third quarter of 2002 compared to $565,000 in the third quarter of 2001. Amortization for 2001 includes amortization of goodwill in the amount of $305,000, which due to the Company's adoption of SFAS 142 effective January 1, 2002, is no longer required to be amortized.

Other income (expense), net. For the third quarter of 2002, other income, net, was $164,000 compared to other income, net, of $458,000 for the third quarter of 2001. Net interest income for the third quarter of 2002 was $93,000 compared to net interest income of $254,000 for the same period in 2001. The $161,000 decrease in net interest income for 2002 was the result of a declining cash balance due to the funding of the 2001 acquisitions as well as a decline in earned interest rates for the third quarter of 2002. Foreign currency adjustments resulted in approximately a $76,000 gain for the third quarter of 2002 versus approximately a $182,000 gain for the same period in 2001. Effective January 1, 2002, certain debt between the Company and its foreign subsidiaries is being treated as a long-term investment rather than as debt with repayment expected in the foreseeable future as previously treated. Accordingly, for the third quarter of 2002 the Company did not record a foreign currency gain adjustment in its income statement related to this intercompany debt. Instead the Company recorded the effect of the exchange rate fluctuation as a currency translation adjustment in accumulated other comprehensive income (loss) in stockholders' equity. The currency translation adjustment recorded in other comprehensive income in connection with this intercompany debt in the third quarter of 2002 was a gain of $281,000. In the third quarter of 2001, the foreign currency gain reflected in the income statement related to intercompany debt was approximately $125,000.

Income taxes. The Company's effective income tax rates were 119.3% for the third quarter of 2002 and 33.8% for the third quarter of 2001. Before the effects of certain non-tax deductible stock compensation expense and certain amortization of intangible assets for 2002 and stock compensation expense, certain amortization of goodwill and other intangible assets and acquired in-process research and development expense in 2001, the Company's effective income tax rates were 39.7% for the third quarter of 2002 and a negative 22.2% for the third quarter of 2001. The increase in the effective income tax rate is principally due to an increase in the 2002 U.S. effective income tax rate from having a significant amount of non-tax deductible stock compensation expense in relation to a decreased amount of projected U.S. income. The negative effective income tax rate for the third quarter of 2001 is the result of adjusting the income tax provision to reflect the projected annualized 2001 effective income tax rates.

Nine months ended September 30, 2002 compared to nine months ended September 30, 2001:

Revenues. Revenues increased $9,528,000, or 33%, to $38,489,000 in the first nine months of 2002 from $28,961,000 for the same period in 2001. Approximately $5.5 million of the increase, or 19%, represented the acquired revenues, the revenue stream of the acquired companies prior to acquisition, for the acquisitions made in 2001 and 2002. For those acquisitions that the Company made during the second quarter of 2001, this amount of increase in revenues includes only the period of time in 2002 when there were no prior year revenues for the acquisitions. The balance of the increase was from existing businesses that introduced new products including new lines of spectrophotometers and plate readers, from existing businesses that introduced a new catalog at the end of the first quarter of 2002, and from the growth in the acquired companies as we leverage our infrastructure and expertise. Revenues for the first nine months of 2002 would have been approximately $37,942,000 if our sales denominated in foreign currencies were translated into U.S. dollars using 2001 exchange rates, an increase of approximately 30% over the same period in 2001.

Cost of product revenue. Cost of product revenues increased $4,545,000 or 31%, to $18,987,000 in the first nine months of 2002 from $14,442,000 for the first nine months of 2001. As a percentage of product revenues, cost of product revenues for the first nine months of 2002 was relatively flat at 49% compared to the same period in 2001.

General and administrative expense. General and administrative expense increased $838,000, or 16%, to $5,926,000 in the third quarter of 2002 from $5,088,000 for the same period in 2001 due primarily to acquisitions. Excluding the general and administrative spending of $901,000 from the acquisitions in 2001 and 2002, general and administrative expense for the first nine months of 2002 decreased approximately $63,000 or 1%. As a percentage of revenues, general and administrative expense was 15.4% in the first nine months of 2002 compared to 17.6% for the same period in 2001. 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 $1,553,000, or 46%, to $4,941,000 in the first nine months of 2002 from $3,388,000 in the first nine months of 2001 due primarily to acquisitions. Excluding the effect of acquisitions, sales and marketing expense increased approximately $204,000, or 6% in the first nine months of 2002. As a percentage of revenues, sales and marketing expense was 12.8% in the first nine months of 2002 compared to 11.7% for the same period in 2001. This increasing percentage reflects the addition of sales and marketing personnel to promote technology acquired in 2001 as well as increased sales and marketing support for the alternate distribution of certain Biochrom product lines. Historically, Biochrom has derived its revenue almost exclusively by partnering with Amersham

Biosciences as its distributor. During the first half of 2002, Biochrom introduced an alternate line of products which will be distributed both directly by Biochrom and by alternate distributors.

Research and development expense. Research and development expense, which includes expenses related to research revenues, was $3,038,000 in the first nine months of 2002, $1,320,000 of which resulted from acquisitions made during 2001 and 2002. Excluding the acquired research and development programs, spending in the first nine months of 2002 was approximately $1,718,000 compared to $2,124,000 for the same period in 2001. During the first nine months of 2001, there were several significant development projects ongoing which related to both newly acquired technology and the existing business. These projects have now been substantially completed and consequently, excluding the effect of acquisitions made during 2001 and 2002, research and development spending has decreased. As a percentage of revenues, research and development was 7.9% during the first nine months of 2002 compared to 7.3% for the same period in 2001. This higher level resulted primarily from the acquisition of Union Biometrica, which, as an early stage commercial technology company, spends, and is expected to continue to spend, a higher percentage of revenues on research and development than we have traditionally experienced.

Stock compensation expense. We recorded $971,000 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 nine months ended September 30, 2002. In the nine months ended September 30, 2001, we recorded stock compensation expense of approximately $2,199,000. We will recognize approximately $856,000 of additional expense over the remaining vesting life of the options.

In-process research and development expense. As of the date of the acquisitions in May of 2001, of Warner Instruments and Union Biometrica, we recorded $159,000 and $5.3 million respectively of in-process research and development expense representing the estimated fair value of acquired research and development projects with no alternative future use.

Restructuring expense. During the third quarter of 2002, the Company recorded $632,000 in restructuring expense. Approximately $144,000 of this expense related to the re-alignment of expenses relative to the current revenue stream at our Union Biometrica subsidiary. The remaining $488,000 expense related to the consolidation of the Walden Precision Apparatus ("WPA") operations into our Biochrom operations. As planned at the time of the acquisition of WPA, this consolidation permitted the elimination of duplicative positions in the Biochrom and WPA operations. The restructuring expenses recorded for both Union Biometrica and Biochrom consisted entirely of termination costs for six personnel at Union Biometrica and nine personnel at Biochrom whose employment was terminated during the quarter ended September 30, 2002.

Amortization of intangibles. Amortization of intangibles, including amortization of acquired technology, was $1,081,000 for the first nine months of 2002 compared to $1,052,000 for the first nine months of 2001. Amortization for 2001 includes amortization of goodwill in the amount of $674,000, which due to the Company's adoption of SFAS 142 effective January 1, 2002, is no longer required to be amortized.

Other income (expense), net. For the first nine months of 2002, other income, net, was $446,000 compared to other income, net, of $1,180,000 for the first nine months of 2001. Net interest income for the first nine months of 2002 was $280,000 compared to net interest income of $1,205,000 for the same period in 2001. The $925,000 decrease in net interest income for 2002 was the result of a declining cash balance due to the funding of the 2001 and 2002 acquisitions as well as a decline in earned interest rates for the first nine months of 2002. Foreign currency adjustments resulted in approximately a $205,000 gain for the first nine months of 2002 versus approximately a $55,000 loss for the same period in 2001. Effective January 1, 2002, certain debt between the Company and its foreign subsidiaries is being treated as a long-term investment rather than as debt with repayment expected in the foreseeable future as previously treated. Accordingly, for the first nine months of 2002 the Company did not record a foreign currency gain adjustment in its income statement related to this intercompany debt. Instead the Company recorded the effect of the exchange rate fluctuation as a currency translation adjustment in accumulated other comprehensive income (loss) in stockholders' equity. The currency translation adjustment recorded in other comprehensive income in connection with this intercompany debt in the first nine months of 2002 was a gain of $754,000. In the first nine months of 2001, the foreign currency gain reflected in the income statement related to intercompany debt was approximately $27,000.

Income taxes. The Company's effective income tax rates were 49.1% for the first nine months of 2002 and a negative 32.7% for the first nine months of 2001. Before the effects of certain non-tax deductible stock compensation expense and certain amortization of intangible assets for 2002 and stock compensation expense, certain amortization of goodwill and other intangible assets and acquired in-process research and development expense in 2001, the Company's effective income tax rates were 36.8% for the first nine months of 2002 and 26.4% for the first nine months of 2001. The increase in the effective income tax rate is principally due to an increase in the 2002 U.S. effective income tax rate from having a significant amount of non-tax deductible stock compensation expense in relation to a decreased amount of projected U.S. income. The increase in the rate is also the result of changes in income across different jurisdictions and relative to consolidated income, including decreases of 2002 taxable income in lower statutory tax jurisdictions. The negative effective income tax rate for the nine-month period in 2001 is the result of adjusting the income tax provision to reflect the projected annualized 2001 effective income tax rates.

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 September 30, 2002, we had cash of $26,459,000, a decrease of $2,926,000 from December 31, 2001 primarily due to the repayment of approximately $3.7 million in debt originating from the acquisition of SciePlas Ltd. in November 2001 and the acquisition of Walden Precision Apparatus for approximately $1,129,000 and approximately $560,000 for professional fees related to the acquisition of Genomic Solutions. The decrease in cash from December 31, 2001 to September 30, 2002 was partially offset by proceeds of approximately $886,000 from the payment of notes receivable from officers and positive cash flow from operations of $1,785,000.

During the first nine months of 2002, our operating activities provided cash of $1,785,000 compared to $2,431,000 for the same period in 2001. For both periods operating cash flows were primarily due to profitable operating results, prior to non-cash charges, partially offset by working capital requirements. A significant factor in the decrease in cash flow from operations was the payment in the third quarter of approximately $560,000 in professional fees related to the acquisition of Genomic Solutions, which is included in other assets.

Our investing activities used cash of $2,291,000 for the first nine months of 2002 and $13,214,000 for the first nine months of 2001. In the first nine months of 2002, investing activity primarily included cash used for the acquisition of WPA and capital expenditures related to expanding and improving lease space for our Somerville, MA facility and outfitting our Geel, Belgium research lab. The investing activity for the first nine months of 2001 included the use of cash for capital expenditures which primarily included a new business software system for our Holliston, MA facility in addition to the use of cash for the acquisition of Warner Instruments, Inc, Union Biometrica, Inc. and International Market Supply.

During the first nine months of 2002, financing activities used cash of $2,800,000 compared to proceeds of $5,189,000 for the same period in 2001. In the first nine months of 2002, we repaid approximately $3.7 million in debt originating from the acquisition of SciePlas Ltd. in November 2001. Partially offsetting this use of cash in the first nine months of 2002 are proceeds of approximately $886,000 from the repayment of notes receivable from officers. The financing activities for the first nine months of 2001 provided cash of $5,189,000, primarily as a result of the underwriters exercise of the over allotment in connection with our initial public offering in December 2000.

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 operating plans, we expect that proceeds from the initial public offering, available cash, cash generated from operations and debt capacity will be sufficient to finance operations and capital expenditures for the foreseeable future. However, 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 Assets 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. Accordingly, the Company will adopt SFAS No. 143 on January 1, 2003. The Company does not expect that the adoption of this statement will have a material impact on its 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. 4 and 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 does not believe the impact of adopting SFAS No. 145 on January 1, 2003 will have a material impact on its 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. Early application is encouraged; however, previously issued financial statements may not be restated. The Company does not believe that the adoption of this statement on January 1, 2003 will have a material impact on its consolidated results of operations or financial position.

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:

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 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.

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.

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.

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.

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

Harvard Bioscience's ability to achieve the benefits of its recent merger with Genomic Solutions will depend in part on the integration and leveraging of technology, operations, sales and marketing channels and personnel of Harvard Bioscience and Genomic Solutions. 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 merger will not result in adverse changes in client service standards or business focus;
- persuading the combined company's employees that Harvard Bioscience's and Genomic Solutions' business cultures are compatible; and
- addressing any perceived adverse changes in business focus.

Harvard Bioscience may have difficulty successfully integrating the businesses, the domestic and foreign operations or the product lines of Harvard Bioscience and Genomic Solutions, and as a result, Harvard Bioscience may not realize any of the anticipated benefits of the merger. In particular, Harvard Bioscience may not successfully leverage Genomic Solutions' sales force or either Company's distribution channels which could adversely affect the combined company following the merger. Additionally, neither Harvard Bioscience nor Genomic Solutions can assure that the growth rate of the combined company will equal the growth rates that have been experienced by Harvard Bioscience and Genomic Solutions, respectively, operating as separate companies in the past.

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

Harvard Bioscience's and Genomic Solutions' customers may, in response to the consummation of the merger, 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' 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 employees. This may adversely affect the combined company's ability to attract and retain key Genomic Solutions management, sales, marketing and technical personnel.

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 intend 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 has obtained a legal opinion from its tax counsel that the merger will constitute 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.

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 target validation high throughput screening, assay development and ADMET screening technologies 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 year ended December 31, 2001, approximately 30% 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.

Harvard Bioscience may be adversely affected by litigation involving Harvard University.

On December 26, 2000, Harvard University filed a lawsuit in U.S. District Court, District of Massachusetts alleging that Harvard Bioscience's use of the "Harvard Bioscience" and "Harvard Apparatus" names infringes on Harvard University's trademarks. Harvard University is seeking both injunctive relief and monetary damages. On April 10, 2001, the U.S. District Court, District of Massachusetts denied Harvard University's request for a preliminary injunction prohibiting Harvard Bioscience from using the names "Harvard Bioscience" and "Harvard Apparatus." The Court did issue an order directing Harvard Bioscience not to use the "Harvard" name in the color crimson or in a font similar to the font used by Harvard University. On May 6, 2002, the Court issued a partial summary judgment order in favor of Harvard Bioscience and against Harvard University regarding Harvard Bioscience's use of the name "Harvard Apparatus." Harvard Bioscience intends to continue to vigorously defend the remaining claims as it believes that it has strong rights to the name "Harvard Bioscience" and that Harvard University's claims are without merit. Harvard Bioscience believes that the defense of these claims could involve significant litigation-related expenses, which could have an adverse effect on Harvard Bioscience's results of operations. If claims for injunctive relief or other damages are decided against it, Harvard Bioscience could suffer monetary damages, lose its ability to use the names "Harvard Bioscience" and "Harvard Apparatus," lose the reputation and goodwill associated with these names and ultimately experience decreased revenues and earnings in subsequent periods.

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 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 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. The Company anticipates that it will move for confirmation of the arbitrator's decision in an appropriate court within the next 30 days, at which time Mr. Grindle may seek to vacate or otherwise challenge the arbitrator's decision. Harvard Bioscience believes that Mr. Grindle's claims are without merit and intends to continue to defend them vigorously in the event Mr. Grindle seeks to vacate or otherwise challenge the arbitrator's decision. Harvard Bioscience believes that the defense of any challenges could involve significant litigation-related expenses, which could have an adverse effect on Harvard Bioscience's results of operations.

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 eleven U.S. patents and has eight 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.

Changes in accounting for goodwill amortization 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 as of December 31, 2001 will not be amortized, but instead will be evaluated annually to determine whether any portion of the remaining balance of goodwill 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 September 30, 2002, Harvard Bioscience had unamortized goodwill of $19.8 million, or 23% of its total assets.

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.

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

Harvard Bioscience may 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 60% of total revenues for the year ended December 31, 2001. 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 loss of approximately $100,000 and a reduction of foreign equity of approximately $235,000 for the year ended December 31, 2001,
- 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 year ended December 31, 2001, approximately 60% 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.

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.

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 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 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.

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,
- downward revisions in securities analysts' estimates or management guidance,
- 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.

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.

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.

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.

The following matters, among others, may have a material adverse effect on the business, financial condition, liquidity, results of operations or prospects, financial or otherwise, of Genomic Solutions.

Genomic Solutions, Harvard Bioscience's recently acquired subsidiary, has a history of losses and anticipates future losses and negative cash flow.

Genomic Solutions incurred net losses of $4.0 million for the six months ended June 30, 2002, $26.1 million for the fiscal year ended December 31, 2001, $8.9 million for the fiscal year ended December 31, 2000 and $11.1 million for the fiscal 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 and it may become profitable at a different time or it may never become profitable. Even if Genomic Solutions does achieve profitability, it may not sustain or increase profitability on a quarterly or annual basis.

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.

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.

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 Companys's products are used.

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 new 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. In connection with the new rules, 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 December 26, 2000, Harvard University filed a lawsuit in U.S. District Court, District of Massachusetts alleging that our use of the "Harvard Bioscience" and "Harvard Apparatus" names infringes on Harvard University's trademarks. Harvard University is seeking both injunctive relief and monetary damages. The Company believes that these claims are without merit, and are vigorously defending against such claims. On April 10, 2001, the U.S. District Court, District of Massachusetts denied Harvard University's request for a preliminary injunction prohibiting the Company from using the name "Harvard Bioscience" and "Harvard Apparatus". The Court did issue an order directing the Company not to use the "Harvard" name in the color crimson or in a font similar to the font used by Harvard University. On May 6, 2002, the U.S. District Court, District of Massachusetts issued a partial summary judgement order against Harvard University regarding the Company's use of the name "Harvard Apparatus". The Company intends to continue to vigorously defend the remaining claims of Harvard University against the Company as it believes the claims are without merit.

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 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 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. The Company anticipates that it will move for confirmation of the decision in an appropriate court within the next 30 days, at which time Mr. Grindle may seek to vacate or otherwise challenge the arbitrator's decision.

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.

From April 1, 2002 (the date of the filing of our Annual Report on Form 10-K) to the date hereof, we used the net proceeds as follows: (i) approximately $1.1million was used to fund the acquisition Walden Precision Apparatus (ii) approximately $1.6 million was used to fund working capital needs of Union Biometrica, Inc. and (iii) approximately $6.2 million was used to fund the acquisition of Genomic Solutions and the associated costs. The use of proceeds from our initial public offering described above 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, 2001.

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 Agreement and Plan of Merger dated July 17, 2002, by and among Harvard Bioscience, Inc., HAG Acq. Corp. and Genomic Solutions, Inc. (incorporated by reference to Exhibit 2.4 to Harvard Bioscience Inc.'s Registration Statement on Form S-4 (File No. 333-98927)).

(b) Reports on Form 8-K

1. Form 8-K filed July 19, 2002 – reporting the signing of the Agreement and Plan of Merger among the Company, HAG Acq. Corp. (a wholly-owned subsidiary of the Company) and Genomic Solutions Inc. as described in Part I, Item 1 of this Form 10-Q.
2. Form 8-K filed August 15, 2002 – reporting the submission to the Securities and Exchange Commission the certification required by Section 906 of the Sarbanes-Oxley Act of 2002.
3. Form 8-K filed September 23, 2002 – reporting the filing of a prospectus supplement to the Company's prospectus dated September 17, 2002.

SIGNATURES

Pursuant to the requirements of Section 13 and 15(d) 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: November 14, 2002

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 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: November 14, 2002

/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 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: November 14, 2002

/s/ Chane Graziano
Chane Graziano
Chief Executive Officer