

HARVARD BIOSCIENCE INC  
Form 10-Q  
August 06, 2015

**UNITED STATES**

**SECURITIES AND EXCHANGE COMMISSION**

**WASHINGTON, DC 20549**

**FORM 10-Q**

**Quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934  
For the quarterly period ended June 30, 2015**

**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 001-33957**

**HARVARD BIOSCIENCE, INC.**

**(Exact Name of Registrant as Specified in Its Charter)**

**Delaware** **04-3306140**  
**(State or Other Jurisdiction of (IRS Employer**

**Incorporation or Organization) Identification No.)**

**84 October Hill Road, Holliston, MA 01746**  
**(Address of Principal Executive Offices) (Zip Code)**  
**(508) 893-8999**

**(Registrant's telephone number, including area code)**

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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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).  YES  NO

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company) Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).  YES  NO

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

As of July 31, 2015, there were 33,925,864 shares of common stock, par value \$0.01 per share, outstanding.

**HARVARD BIOSCIENCE, INC.**

**FORM 10-Q**

**For the Quarter Ended June 30, 2015**

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

	June 30, 2015	December 31, 2014
Assets		
Current assets:		
Cash and cash equivalents	\$7,402	\$14,134
Accounts receivable, net of allowance for doubtful accounts of \$320 and \$328, respectively	18,542	16,141
Inventories	23,068	20,531
Deferred income tax assets - current	2,608	1,515
Other receivables and other assets	4,922	4,742
Total current assets	56,542	57,063
Property, plant and equipment, net	5,764	5,190
Deferred income tax assets - non-current	11,018	11,056
Amortizable intangible assets, net	22,538	21,153
Goodwill	41,081	39,822
Other indefinite lived intangible assets	1,228	1,252
Other assets	406	380
Total assets	\$138,577	\$135,916
Liabilities and Stockholders' Equity		
Current liabilities:		
Current portion, long-term debt	\$5,000	\$5,000
Accounts payable	8,834	6,294
Deferred revenue	864	655
Accrued income taxes	159	554
Accrued expenses	4,438	4,452
Deferred income tax liabilities - current	246	121
Other liabilities - current	1,692	1,023
Total current liabilities	21,233	18,099
Long-term debt, less current installments	15,650	16,450
Deferred income tax liabilities - non-current	2,206	1,325
Other long term liabilities	4,675	4,574
Total liabilities	43,764	40,448

## Commitments and contingencies

## Stockholders' equity:

Preferred stock, par value \$0.01 per share, 5,000,000 shares authorized	-	-
Common stock, par value \$0.01 per share, 80,000,000 shares authorized; 41,661,261 and 40,308,763 shares issued and 33,915,754 and 32,563,256 shares outstanding, respectively	415	397
Additional paid-in-capital	209,793	206,656
Accumulated deficit	(93,736 )	(92,684 )
Accumulated other comprehensive loss	(10,991 )	(8,233 )
Treasury stock at cost, 7,745,507 common shares	(10,668 )	(10,668 )
Total stockholders' equity	94,813	95,468
Total liabilities and stockholders' equity	\$ 138,577	\$ 135,916

See accompanying notes to unaudited consolidated financial statements.

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**HARVARD BIOSCIENCE, INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)**  
**(Unaudited, in thousands, except per share data)**

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2015	2014	2015	2014
Revenues	\$28,800	\$26,958	\$54,563	\$52,851
Cost of revenues (exclusive of items shown separately below)	16,205	14,680	30,490	28,812
Gross profit	12,595	12,278	24,073	24,039
Sales and marketing expenses	5,128	4,557	10,327	8,989
General and administrative expenses	4,922	3,997	9,753	8,248
Research and development expenses	1,714	1,284	3,462	2,257
Restructuring charges	54	115	111	252
Amortization of intangible assets	678	587	1,471	1,221
Total operating expenses	12,496	10,540	25,124	20,967
Operating income (loss)	99	1,738	(1,051 )	3,072
Other (expense) income:				
Foreign exchange	(134 )	(67 )	89	(148 )
Interest expense	(215 )	(248 )	(437 )	(513 )
Interest income	3	12	4	26
Other expense	(180 )	(165 )	(796 )	(148 )
Other expense, net	(526 )	(468 )	(1,140 )	(783 )
(Loss) income before income taxes	(427 )	1,270	(2,191 )	2,289
Income tax (benefit) expense	(776 )	248	(1,139 )	548
Net income (loss)	\$349	\$1,022	\$(1,052 )	\$1,741
Earnings (loss) per share:				
Basic earnings (loss) per common share	\$0.01	\$0.03	\$(0.03 )	\$0.05
Diluted earnings (loss) per common share	\$0.01	\$0.03	\$(0.03 )	\$0.05
Weighted average common shares:				
Basic	33,569	32,045	33,240	31,947
Diluted	35,026	32,946	33,240	32,935
Comprehensive income (loss):				
Net income (loss)	\$349	\$1,022	\$(1,052 )	\$1,741
Foreign currency translation adjustments	1,760	369	(2,737 )	584
Derivatives qualifying as hedges, net of tax:				
Loss on derivative instruments designated and qualifying as cash flow hedges	(12 )	(56 )	(71 )	(80 )
Amounts reclassified from accumulated other comprehensive loss to net income (loss)	24	34	50	69
Unrealized losses on pension benefit obligation, net of tax	-	(484 )	-	(484 )
Total comprehensive income (loss)	\$2,121	\$885	\$(3,810 )	\$1,830

See accompanying notes to unaudited consolidated financial statements.



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

	<b>Six Months Ended</b>	
	<b>June 30,</b>	
	2015	2014
Cash flows from operating activities:		
Net (loss) income	\$(1,052 )	\$1,741
Adjustments to reconcile net (loss) income to net cash (used in) provided by operating activities:		
Stock compensation expense	1,272	919
Depreciation	769	608
Loss (gain) on disposal of fixed assets	11	(4 )
Non-cash restructuring credits	(64 )	(118 )
Amortization of catalog costs	8	24
Provision for allowance for doubtful accounts	3	(30 )
Amortization of intangible assets	1,471	1,221
Amortization of deferred financing costs	30	30
Deferred income taxes	(1,027 )	119
Changes in operating assets and liabilities:		
Increase in accounts receivable	(2,136 )	(294 )
Increase in inventories	(1,242 )	(1,312 )
Increase in other receivables and other assets	(240 )	(864 )
Increase in trade accounts payable	2,451	349
Decrease in accrued income taxes	(395 )	(7 )
(Decrease) increase in accrued expenses	(660 )	51
Increase (decrease) in deferred revenue	216	(36 )
(Decrease) increase in other liabilities	(396 )	89
Net cash (used in) provided by operating activities	(981 )	2,486
Cash flows (used in) provided by investing activities:		
Additions to property, plant and equipment	(1,640 )	(744 )
Proceeds from sales of property, plant and equipment	15	78
Acquisitions, net of cash acquired	(4,545 )	-
Net cash used in investing activities	(6,170 )	(666 )
Cash flows provided by (used in) financing activities:		
Proceeds from issuance of debt	4,050	-
Repayments of debt	(4,850 )	(2,500 )
Payments of debt issuance costs	(32 )	-
Net proceeds from issuance of common stock	1,864	1,001
Net cash provided by (used in) financing activities	1,032	(1,499 )
Effect of exchange rate changes on cash	(613 )	342
(Decrease) increase in cash and cash equivalents	(6,732 )	663
Cash and cash equivalents at the beginning of period	14,134	25,771
Cash and cash equivalents at the end of period	\$7,402	\$26,434
Supplemental disclosures of cash flow information:		
Cash paid for interest	\$427	\$458
Cash paid for income taxes, net of refunds	\$312	\$688



See accompanying notes to unaudited consolidated financial statements.

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**HARVARD BIOSCIENCE, INC.**

**NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS**

**1. Basis of Presentation and Summary of Significant Accounting Policies**

*Basis of Presentation*

The unaudited consolidated financial statements of Harvard Bioscience, Inc. and its wholly-owned subsidiaries (collectively, “Harvard Bioscience” or the “Company”) as of June 30, 2015 and for the three and six months ended June 30, 2015 and 2014 have been prepared by the Company pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”). Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles (“U.S. GAAP”) have been condensed or omitted pursuant to such rules and regulations. The December 31, 2014 consolidated balance sheet was derived from audited financial statements, but does not include all disclosures required by U.S. GAAP. However, the Company believes that the disclosures are adequate to make the information presented not misleading. These unaudited consolidated financial statements should be read in conjunction with the consolidated financial statements and the notes thereto included in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2014, which was filed with the SEC on March 12, 2015.

In the opinion of management, all adjustments, which include normal recurring adjustments necessary to present a fair statement of financial position as of June 30, 2015, results of operations and comprehensive (loss) income for the three and six months ended June 30, 2015 and 2014 and cash flows for the six months ended June 30, 2015 and 2014, as applicable, have been made. The results of operations for the three and six months ended June 30, 2015 are not necessarily indicative of the operating results for the full fiscal year or any future periods.

*Summary of Significant Accounting Policies*

The accounting policies underlying the accompanying unaudited consolidated financial statements are those set forth in Note 2 to the consolidated financial statements included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2014, which was filed with the SEC on March 12, 2015.

**2. Recently Issued Accounting Pronouncements**

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, “*Revenue from Contracts with Customers*,” a new accounting standard that provides for a comprehensive model to use in the accounting for revenue arising from contracts with customers that will replace most existing revenue recognition guidance in U.S. GAAP. Under this standard, revenue will be recognized to depict the transfer of

promised goods or services to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. At its July 2015 meeting, the FASB agreed to defer the mandatory effective date of ASU 2014-09 one year. Under the one year deferral, the standard will take effect in 2018 for calendar year-end public entities. The Company is assessing the new standard and has not yet determined the impact to the consolidated financial statements.

In April 2015, the FASB issued ASU 2015-03, *Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs*. The update requires debt issuance costs related to a recognized debt liability to be presented in the balance sheet as a direct deduction from the carrying amount of the related debt liability, instead of being presented as an asset. Debt disclosures will include the face amount of the debt liability and the effective interest rate. The update requires retrospective application and represents a change in accounting principle. The update is effective for fiscal years beginning after December 15, 2015. Early adoption is permitted for financial statements that have not been previously issued. The Company is evaluating the impact of ASU 2015-03 on its consolidated financial statements and the possibility of early adoption by the Company.

In July 2015, the FASB issued ASU 2015-11, *Simplifying Measurement of Inventory*. The update requires measurement of most inventory “at the lower of cost and net realizable value”, and applies to all entities that recognize inventory within the scope of ASC 330, except for inventory measured under the last-in, first-out (LIFO) method or the retail inventory method (RIM). ASU 2015-11 requires prospective application and represents a change in accounting principle. The update is effective for fiscal years beginning after December 15, 2016. Early adoption is permitted for financial statements that have not been previously issued. The Company is evaluating the impact of ASU 2015-11 on its consolidated financial statements and the possibility of early adoption by the Company.

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Changes in each component of accumulated other comprehensive loss, net of tax are as follows:

(in thousands)	Foreign currency translation adjustments	Derivatives qualifying as hedges	Defined benefit pension plans	Total
Balance at December 31, 2014	\$ (4,658 )	\$ (18 )	\$(3,557)	\$(8,233 )
Other comprehensive loss before reclassifications	(2,737 )	(71 )	-	(2,808 )
Amounts reclassified from AOCI	-	50	-	50
Other comprehensive loss	(2,737 )	(21 )	-	(2,758 )
Balance at June 30, 2015	\$ (7,395 )	\$ (39 )	\$(3,557)	\$(10,991)

**4. Acquisitions**

The Company completed one acquisition during the six months ended June 30, 2015.

***HEKA Elektronik***

On January 8, 2015, the Company, through its wholly-owned Ealing Scientific Limited and Multi Channel Systems MCS GmbH subsidiaries, acquired all of the issued and outstanding shares of HEKA Elektronik (“HEKA”) for approximately \$5.9 million, or \$4.5 million, net of cash acquired. Included in the acquisition of HEKA are: HEKA Elektronik Dr. Schulze GmbH, based in Lambrecht, Germany (“HEKA Germany”); HEKA Electronics Incorporated, based in Chester, Nova Scotia, Canada (“HEKA Canada”); and HEKA Instruments Incorporated, based in Bellmore, New York. The Company funded the acquisition from its existing cash balances.

HEKA is a developer, manufacturer and marketer of sophisticated electrophysiology instrumentation and software for biomedical and industrial research applications. This acquisition is complementary to the electrophysiology line currently offered by the Company’s wholly-owned Warner Instruments and MCS subsidiaries.

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The aggregate purchase price for this acquisition was preliminarily allocated to tangible and intangible assets acquired as follows:

	(in thousands)
Tangible assets	\$ 4,165
Liabilities assumed	(2,819 )
Net assets	1,346
Goodwill and intangible assets:	
Goodwill	2,061
Trade name	774
Customer relationships	1,627
Developed technology	1,338
Non-compete agreements	27
Deferred tax liabilities	(1,245 )
Total goodwill and intangible assets, net of tax	4,582
Acquisition purchase price	\$ 5,928

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The estimated purchase price allocation is preliminary and subject to revision. A valuation of the assets acquired and liabilities assumed is being conducted and the final allocation will be made when completed.

Goodwill recorded as a result of the acquisition of HEKA is not deductible for tax purposes.

The results of operations for HEKA have been included in the Company's consolidated financial statements from the date of acquisition and are not material.

The following consolidated pro forma information is based on the assumption that the acquisition of HEKA occurred on January 1, 2014. Accordingly, the historical results have been adjusted to reflect amortization expense that would have been recognized on such a pro forma basis. The pro forma information is presented for comparative purposes only and is not necessarily indicative of the financial position or results of operations which would have been reported had we completed the acquisition during these periods or which might be reported in the future.

	Three Months Ended June 30, 2014 (in thousands)	Six Months Ended June 30, 2014
Pro Forma		
Revenues	\$ 28,339	\$ 55,612
Net income	1,096	1,889

The Company completed two acquisitions during 2014.

***Multi Channel Systems MCS GmbH***

On October 1, 2014, the Company, through its wholly-owned Biochrom Limited subsidiary, acquired all of the issued and outstanding shares of Multi Channel Systems MCS GmbH ("MCS"), which has its principal offices in Germany, for approximately \$11.2 million, including a working capital adjustment. The Company funded the acquisition from its existing cash balances.

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MCS is a developer, manufacturer and marketer of in vitro and in vivo electrophysiology instrumentation for extracellular recording and stimulation. This acquisition is complementary to the in vitro electrophysiology line currently offered by the Company's wholly-owned Warner Instruments subsidiary.

The aggregate purchase price for this acquisition was preliminarily allocated to tangible and intangible assets acquired as follows:

	(in thousands)
Tangible assets	\$ 5,442
Liabilities assumed	(1,207 )
Net assets	4,235
Goodwill and intangible assets:	
Goodwill	3,745
Trade name	1,008
Customer relationships	1,204
Developed technology	2,452
Non-compete agreements	148
Deferred tax liabilities	(1,603 )
Total goodwill and intangible assets, net of tax	6,954
Acquisition purchase price	\$ 11,189

Goodwill recorded as a result of the acquisition of MCS is not deductible for tax purposes.

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The results of operations for MCS have been included in the Company's consolidated financial statements from the date of acquisition and are not material.

The following consolidated pro forma information is based on the assumption that the acquisition of MCS occurred on January 1, 2014. Accordingly, the historical results have been adjusted to reflect amortization expense that would have been recognized on such a pro forma basis. The pro forma information is presented for comparative purposes only and is not necessarily indicative of the financial position or results of operations which would have been reported had we completed the acquisition during these periods or which might be reported in the future.

	Three Months Ended June 30, 2014 (in thousands)	Six Months Ended June 30, 2014
Pro Forma		
Revenues	\$ 28,780	\$ 56,492
Net income	1,105	1,906

***Triangle BioSystems, Inc.***

On October 1, 2014, the Company acquired all of the issued and outstanding shares of Triangle BioSystems, Inc. ("TBSI"), which has its principal offices in North Carolina, for approximately \$2.2 million, including a working capital adjustment. The Company funded the acquisition from borrowings under its credit facility.

TBSI is a developer, manufacturer and marketer of wireless neural interface equipment to aid in vivo neuroscience research, especially in the fields of electrophysiology, psychology, neurology and pharmacology. This acquisition is complementary to the behavioral neuroscience lines currently offered by the Company's wholly-owned Panlab and Coulbourn subsidiaries.

The aggregate purchase price for this acquisition was preliminarily allocated to tangible and intangible assets acquired as follows:

	(in thousands)
Tangible assets	\$ 1,278



Liabilities assumed	(530 )
Net assets	748
Goodwill and intangible assets:	
Goodwill	946
Trade name	143
Customer relationships	308
Developed technology	363
Non-compete agreements	30
Deferred tax liabilities	(325 )
Total goodwill and intangible assets, net of tax	1,465
Acquisition purchase price	\$ 2,213

The results of operations for TBSI have been included in the Company's consolidated financial statements from the date of acquisition and are not material. The Company considers this acquisition immaterial for the purposes of proforma financial statement disclosures. Goodwill recorded as a result of the acquisition of TBSI is not deductible for tax purposes.

Direct acquisition costs recorded in other expense, net in the Company's consolidated statements of operations were \$0.2 million and \$0.8 million for the three and six months ended June 30, 2015, respectively, and \$0.2 million for both the three and six months ended June 30, 2014, respectively.

Table of Contents**5. Goodwill and Other Intangible Assets**

Intangible assets consist of the following:

	June 30, 2015 (in thousands)		December 31, 2014		Weighted Average Life	(a)
	Gross	Accumulated Amortization	Gross	Accumulated Amortization		
Amortizable intangible assets						
Existing technology	\$16,399	\$(11,508)	\$15,538	\$(11,198)	7.6	Years
Trade names	7,698	(2,826)	7,114	(2,557)	9.5	Years
Distribution agreements/customer relationships	23,830	(11,238)	22,730	(10,681)	10.4	Years
Patents	259	(76)	256	(49)	3.7	Years
Total amortizable intangible assets	48,186	\$(25,648)	45,638	\$(24,485)		
Indefinite-lived intangible assets:						
Goodwill	41,081		39,822			
Other indefinite-lived intangible assets	1,228		1,252			
Total goodwill and other indefinite-lived intangible assets	42,309		41,074			
Total intangible assets	\$90,495		\$86,712			

(a) Weighted average life as of June 30, 2015.

The change in the carrying amount of goodwill for the six months ended June 30, 2015 is as follows:

	(in thousands)
Balance at December 31, 2014	\$ 39,822
Goodwill arising from business combinations	2,061
Effect of change in currency translation	(802)
Balance at June 30, 2015	\$ 41,081

Intangible asset amortization expense was \$0.7 million and \$0.6 million for the three months ended June 30, 2015 and 2014, respectively. Intangible asset amortization expense was \$1.5 million and \$1.2 million for the six months ended June 30, 2015 and 2014, respectively. Amortization expense of existing amortizable intangible assets is currently estimated to be \$2.8 million for the year ending December 31, 2015, \$2.8 million for the year ending December 31, 2016, \$2.5 million for the year ending December 31, 2017, \$2.4 million for the year ending December 31, 2018 and

\$2.2 million for the year ending December 31, 2019.

**6. Inventories**

Inventories consist of the following:

	June 30, 2015	December 31, 2014
	(in thousands)	
Finished goods	\$ 10,607	\$ 10,138
Work in process	1,256	946
Raw materials	11,205	9,447
Total	\$ 23,068	\$ 20,531

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Property, plant and equipment consist of the following:

	June 30, 2015	December 31, 2014
	(in thousands)	
Land, buildings and leasehold improvements	\$2,619	\$2,595
Machinery and equipment	10,172	10,102
Computer equipment and software	7,300	6,322
Furniture and fixtures	1,324	1,125
Automobiles	54	56
	21,469	20,200
Less: accumulated depreciation	(15,705)	(15,010)
Property, plant and equipment, net	\$5,764	\$5,190

**8. Restructuring and Other Exit Costs*****Q2 2015 Restructuring Plan***

During the second quarter of 2015, management of Harvard Bioscience initiated a plan to consolidate the manufacturing operations of HEKA Canada to HEKA Germany in order to create organizational efficiencies. For the three and six months ended June 30, 2015, the Company recorded restructuring charges of approximately \$13,000 representing severance costs. Additional charges related to this plan are expected to be incurred through the third quarter of 2015, and include, but are not limited to, contract termination costs, as well as site moving and employee relocation costs. Payments related to this plan are expected to be made through the end of 2015. Activity and liability balances related to these charges were as follows:

	Severance Costs (in thousands)
Restructuring charges	\$ 13
Cash payments	-
Restructuring balance at June 30, 2015	\$ 13

***Q1 2015 Restructuring Plan***

During the first quarter of 2015, management of Harvard Bioscience initiated a plan to relocate certain manufacturing operations in order to create organizational efficiencies and reduce operating expenses. The 2015 restructuring plan included plans to consolidate the manufacturing operations of its Coulbourn subsidiary to its headquarters in Holliston, MA. During the six months ended June 30, 2015, the Company recorded restructuring charges of approximately \$0.1 million representing severance costs. Additional charges related to this plan are expected to be incurred through the third quarter of 2015, and include, but are not limited to, contract termination costs, as well as site moving and employee relocation costs. Payments related to this plan are expected to be made through the end of 2015. Activity and liability balances related to these charges were as follows:

	Severance Costs (in thousands)
Restructuring charges	\$ 88
Non-cash reversal of restructuring charges	(6 )
Cash payments	-
Restructuring balance at June 30, 2015	\$ 82

Table of Contents**2014 Restructuring Plan**

During the fourth quarter of 2014, management of Harvard Bioscience initiated a plan to relocate certain distribution and manufacturing operations in order to create organizational efficiencies and reduce operating expenses. The 2014 restructuring plan included plans to relocate the distribution operations of the Company's Denville subsidiary from New Jersey to North Carolina, as well as consolidating the manufacturing operations of its Biochrom subsidiary to its headquarters in Holliston, MA. During the six months ended June 30, 2015, the Company recorded restructuring charges of approximately \$16,000. Additional charges related to this plan are expected to be incurred through the third quarter of 2015, and include, but are not limited to, contract termination costs, as well as site moving and employee relocation costs. Payments related to this plan are expected to be made through the end of 2015. Activity and liability balances related to these charges were as follows:

	Severance Costs	Other	Total
	(in thousands)		
Restructuring balance at December 31, 2014	\$626	\$-	\$626
Restructuring charges	39	35	74
Non-cash reversal of restructuring charges	(58 )	-	(58 )
Cash payments	(129)	(35)	(164)
Effect of change in currency translation	3	-	3
Restructuring balance at June 30, 2015	\$481	\$-	\$481

**2013 Restructuring Plan**

During the fourth quarter of 2013, the management of Harvard Bioscience initiated a plan to realign global operations to improve organizational efficiencies and reduce operating expenses throughout the Company. The plan included an approximately 13% reduction in the workforce, as well as the elimination of the position of Chief Operating Officer. No further charges are expected to be incurred on this matter. At December 31, 2014 and June 30, 2015, the Company had no remaining liability related to this plan on its balance sheet. Activity and liability balances related to these charges in 2014 were as follows:

	Severance and Related Costs	Other	Total
	(in thousands)		
Restructuring balance at December 31, 2013	\$1,434	\$-	\$1,434
Restructuring charges	195	175	370
Non-cash reversal of restructuring charges	(115 )	-	(115 )

Cash payments	(1,184)	(159)	(1,343)
Restructuring balance at June 30, 2014	\$330	\$16	\$346

***2012 Restructuring Plan***

During 2012, the management of Harvard Bioscience initiated a plan to reduce operating expenses at one of its foreign subsidiaries. No further charges are expected to be incurred on this matter. At December 31, 2014 and June 30, 2015, the Company had no remaining liability related to this plan on its balance sheet. Activity and liability balances related to these charges in 2014 were as follows:

	Severance and Related Costs (in thousands)
Restructuring balance at December 31, 2013	\$ 3
Non-cash reversal of restructuring charges	(3 )
Restructuring balance at June 30, 2014	\$ -

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Aggregate net restructuring charges for the three and six months ended June 30, 2015 and 2014 were as follows:

	Three Months Ended June 30, 2015		Six Months Ended June 30, 2014	
Restructuring charges	\$54	\$115	\$111	\$252

(in thousands)

**9. Related Party Transactions**

On November 1, 2013, the spin-off of Harvard Apparatus Regenerative Technology, Inc. (“HART”) from the Company was completed. In connection with the HART spin-off, the Company entered into various commercial agreements with HART. These agreements included: (i) a Separation and Distribution Agreement; (ii) an Intellectual Property Matters Agreement; (iii) a Product Distribution Agreement; (iv) a Tax Sharing Agreement; (v) a Transition Services Agreement; and (vi) a Sublease.

The Company recorded revenues of approximately \$101,000 and \$149,000 for the three and six months ended June 30, 2015, respectively, and \$31,000 and \$109,000 for the three and six months ended June 30, 2014, respectively, as a result of the exclusive distribution rights pursuant to the Product Distribution Agreement. The Company’s operating expenses were reduced by \$41,000 and \$101,000 for the three and six months ended June 30, 2014, respectively, as a result of the fees the Company charged to HART for services provided pursuant to the Transition Services Agreement. In addition, the Company’s rent expense was reduced by \$44,000 and \$86,000 for the three and six months ended June 30, 2015, respectively, and \$41,000 and \$81,000 for the three and six months ended June 30, 2014, respectively, as a result of sublease rent charged to HART pursuant to the Sublease.

David Green, who is currently a Director of the Company and was also formerly the Company’s President and interim CEO, was the Chairman and CEO of HART until his resignation on April 17, 2015. Mr. Green remains a member of HART’s Board of Directors. Following Mr. Green’s resignation from HART, the Company has determined that it is no longer a related party with HART.

As part of the acquisitions of MCS and TBSI, the Company signed lease agreements with the former owners of the acquired companies. The principals of such former owners were employees of the Company as of June 30, 2015. Pursuant to the lease agreement, the Company incurred rent expense of approximately \$58,000 and \$113,000 to the former owners of MCS for the three and six months ended June 30, 2015, respectively. Pursuant to the lease



agreement, the Company incurred rent expense of approximately \$11,000 and \$21,000 to the former owner of TBSI for the three and six months ended June 30, 2015, respectively.

## 10. Warranties

Warranties are estimated and accrued at the time revenues are recorded. A rollforward of the Company's product warranty accrual is as follows:

	Beginning Balance (in thousands)	Payments (Credits)	Additions/ (Credits)	Other	Ending Balance
Year ended December 31, 2014	\$ 305	(102 )	49	-	\$ 252
Six months ended June 30, 2015	\$ 252	(25 )	(73 )	3	\$ 157

Table of Contents**11. Employee Benefit Plans**

Certain of the Company's subsidiaries in the United Kingdom, or UK, Harvard Apparatus Limited and Biochrom Limited, maintain contributory, defined benefit or defined contribution pension plans for substantially all of their employees. As of the quarter ended September 30, 2014, the principal employer of the Harvard Apparatus Limited pension plan was changed from Harvard Apparatus Limited to Biochrom Limited. As of the quarter ended June 30, 2014, these defined benefit pension plans were closed to new employees, as well as closed to the future accrual of benefits for existing employees. The components of the Company's defined benefit pension expense were as follows:

	Three Months Ended June 30, 2015		Six Months Ended June 30, 2014	
	2015	2014	2015	2014
	(in thousands)			
Components of net periodic benefit cost:				
Service cost	\$-	\$(8 )	\$-	\$-
Interest cost	190	227	367	448
Expected return on plan assets	(179)	(167)	(345)	(330)
Net amortization loss	81	46	156	91
Net periodic benefit cost	\$92	\$98	\$178	\$209

For the three months ended June 30, 2015 and 2014, the Company contributed \$0.2 million, for both periods, to its defined benefit pension plans. For the six months ended June 30, 2015 and 2014, the Company contributed \$0.4 million, for both periods, to its defined benefit pension plans. The Company expects to contribute approximately \$0.4 million to its defined benefit pension plans during the remainder of 2015.

During the three months ended June 30, 2014 the Company wrote down its Level 3 investment in a longevity fund by an additional \$0.6 million, which reduced its value to \$0. The impact on accumulated other comprehensive loss was \$0.5 million, net of tax. The longevity fund invests in a portfolio of physical life insurance settlements that had been historically valued using the net asset values provided by the fund. Since June 2011, the fund has been closed to all activity. The write down during the three months ended June 30, 2014 was due, in part, to communication from the longevity fund regarding its continued illiquidity and inactivity. There has been no change in the status of the longevity fund since the quarter ended June 30, 2014.

As of June 30, 2015 and December 31, 2014, the Company had an underfunded pension liability of approximately \$4.6 million and \$4.4 million, respectively, included in the other liabilities – non-current line item in the consolidated balance sheets.

**12. Leases**

The Company has noncancelable operating leases for office and warehouse space expiring at various dates through 2020 and thereafter. Rent expense, which is recorded on a straight-line basis, is estimated to be \$2.2 million for the year ended December 31, 2015. Rent expense was approximately \$0.6 million and \$1.2 million for the three and six months ended June 30, 2015, respectively. Rent expense was approximately \$0.4 million and \$0.8 million for the three and six months ended June 30, 2014, respectively.

Future minimum lease payments for operating leases, with initial or remaining terms in excess of one year at June 30, 2015, are as follows:

	Operating Leases (in thousands)
2016	\$ 1,631
2017	1,539
2018	1,511
2019	1,315
2020	1,315
Thereafter	4,502
Net minimum lease payments	\$ 11,813

### 13. Capital Stock

#### *Common Stock*

On February 5, 2008, the Company's Board of Directors adopted a Shareholder Rights Plan and declared a dividend distribution of one preferred stock purchase right for each outstanding share of the Company's common stock to shareholders of record as of the close of business on February 6, 2008. Initially, these rights will not be exercisable and will trade with the shares of the Company's common stock. Under the Shareholder Rights Plan, the rights generally will become exercisable if a person becomes an "acquiring person" by acquiring 20% or more of the common stock of the Company or if a person commences a tender offer that could result in that person owning 20% or more of the common stock of the Company. If a person becomes an acquiring person, each holder of a right (other than the acquiring person) would be entitled to purchase, at the then-current exercise price, such number of shares of preferred stock which are equivalent to shares of the Company's common stock having a value of twice the exercise price of the right. If the Company is acquired in a merger or other business combination transaction after any such event, each holder of a right would then be entitled to purchase, at the then-current exercise price, shares of the acquiring company's common stock having a value of twice the exercise price of the right.

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*Preferred Stock*

The Company's Board of Directors has the authority to issue up to 5.0 million shares of preferred stock and to determine the price privileges and other terms of the shares. The Board of Directors may exercise this authority without any further approval of stockholders. As of June 30, 2015, the Company had no preferred stock issued or outstanding.

*Employee Stock Purchase Plan (as amended, the "ESPP")*

In 2000, the Company approved the ESPP. Under this ESPP, participating employees can authorize the Company to withhold a portion of their base pay during consecutive six-month payment periods for the purchase of shares of the Company's common stock. At the conclusion of the period, participating employees can purchase shares of the Company's common stock at 85% of the lower of the fair market value of the Company's common stock at the beginning or end of the period. Shares are issued under the ESPP for the six-month periods ending June 30 and December 31. Under this plan, 750,000 shares of common stock are authorized for issuance of which 611,369 shares were issued as of June 30, 2015. During the three months ended June 30, 2015 and 2014, the Company issued 26,181 shares and 31,116 shares, respectively, of the Company's common stock under the ESPP.

*Third Amended and Restated 2000 Stock Option and Incentive Plan (as amended, the "Third A&R Plan")*

The Second Amendment to the Third A&R Plan (the "Amendment") was adopted by the Board of Directors on April 3, 2015. Such Amendment was approved by the stockholders at the Company's 2015 Annual Meeting. The Amendment made the following change to the Third A&R Plan:

The aggregate number of shares authorized for issuance under the Third A&R Plan was increased by 2,500,000 shares to 17,508,929.

*Stock-Based Payment Awards*

The Company accounts for stock-based payment awards in accordance with the provisions of FASB ASC 718, which requires it to recognize compensation expense for all stock-based payment awards made to employees and directors including stock options, restricted stock units and employee stock purchases related to the ESPP.

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Stock option and restricted stock unit activity under the Company's Third A&R Plan for the six months ended June 30, 2015 was as follows:

	Stock Options		Restricted Stock Units	
	Stock Options Outstanding	Weighted Average Exercise Price	Restricted Stock Units Outstanding	Grant Date Fair Value
Balance at December 31, 2014	6,263,112	\$ 3.42	306,397	\$4.3
Granted	863,000	5.51	254,685	5.56
Exercised	(1,710,681)	3.04	-	-
Vested (RSUs)	-	-	(237,188)	-
Cancelled / forfeited	(246,055 )	4.01	-	-
Balance at June 30, 2015	5,169,376	\$ 3.87	323,894	\$5.3

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The weighted average fair value of the options granted under the Third A&R Plan during the three months ended June 30, 2015 and 2014 was \$2.08 and \$2.20, respectively. The weighted average fair value of the options granted under the Third A&R Plan during the six months ended June 30, 2015 and 2014 was \$2.21 and \$2.19, respectively. The following assumptions were used to estimate the fair value of stock options granted during the three and six months ended June 30, 2015 and 2014:

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2015	2014	2015	2014
Volatility	39.35 %	57.16 %	41.08 %	56.83 %
Risk-free interest rate	1.70 %	1.80 %	1.72 %	1.78 %
Expected holding period (in years)	5.28 years	5.79 years	5.52 years	5.75 years
Dividend yield	- %	- %	- %	- %

The Company used historical volatility to calculate the expected volatility as of June 30, 2015 and 2014. Historical volatility was determined by calculating the mean reversion of the daily adjusted closing stock price. The risk-free interest rate assumption is based upon observed U.S. Treasury bill interest rates (risk-free) appropriate for the term of the Company's stock options. The expected holding period of stock options represents the period of time options are expected to be outstanding and is based on historical experience. The vesting period ranges from one to four years and the contractual life is ten years.

Stock-based compensation expense related to stock options, restricted stock units and the ESPP for the three and six months ended June 30, 2015 and 2014 was allocated as follows:

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2015	2014	2015	2014
	(in thousands)			
Cost of revenues	\$15	\$30	\$36	\$58
Sales and marketing	107	74	194	144
General and administrative	548	356	997	697
Research and development	22	12	45	20
Total stock-based compensation	\$692	\$472	\$1,272	\$919

On April 28, 2015, the Company announced the appointment of James Green to its Board of Directors and the retirement of Robert Dishman from our Board of Directors. As part of Dr. Dishman's retirement, the Company (i) awarded an unrestricted stock award to Dr. Dishman on April 28, 2015, having an aggregate cash value of \$80,000, (ii) accelerated the vesting of all outstanding stock options and restricted stock units that were unvested as of April 28,

2015, and (iii) extended the post-retirement option exercise period for each option to the earlier to occur of the respective scheduled expiration date or April 28, 2016. Total compensation expense recognized as part of general and administrative expenses for the three and six months ended June 30, 2015, as part of these modifications, was approximately \$0.1 million.

The Company did not capitalize any stock-based compensation.

*Earnings per share*

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
Basic	33,569,180	32,045,314	33,240,467	31,946,654
Effect of assumed conversion of employee and director stock options and restricted stock units	1,456,470	900,618	-	988,801
Diluted	35,025,650	32,945,932	33,240,467	32,935,455

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Excluded from the shares used in calculating the diluted earnings per common share in the above table are options to purchase approximately 1,264,875 and 2,477,884 shares of common stock for the three months ended June 30, 2015 and 2014, respectively, as the impact of these shares would be anti-dilutive. Excluded from the shares used in calculating the diluted earnings per common share in the above table are options to purchase approximately 5,169,376 and 2,578,743 shares of common stock for the six months ended June 30, 2015 and 2014, respectively, as the impact of these shares would be anti-dilutive.

### **14. Long Term Debt**

On August 7, 2009, the Company entered into an Amended and Restated Revolving Credit Loan Agreement related to a \$20.0 million revolving credit facility with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co as lenders (as amended, the “2009 Credit Agreement”). On September 30, 2011, the Company entered into the First Amendment to the Amended and Restated Revolving Credit Loan Agreement (the “First Amendment”) with Bank of America as agent, and Bank of America and Brown Brothers Harriman & Co as lenders. The First Amendment extended the maturity date of the credit facility to August 7, 2013 and reduced the interest rate to the London Interbank Offered Rate plus 3.0%. On October 4, 2012, the Company entered into the Second Amendment to the Amended and Restated Revolving Credit Loan Agreement (the “Second Amendment”) with Bank of America as agent, and Bank of America and Brown Brothers Harriman & Co as lenders. The Second Amendment extended the maturity date of the credit facility to August 7, 2014.

On March 29, 2013, the Company entered into a Second Amended and Restated Revolving Credit Agreement (as amended, the “Credit Agreement”) with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co as lenders, that amended and restated the 2009 Credit Agreement. The Credit Agreement converted the Company’s existing outstanding revolving advances into a term loan in the principal amount of \$15.0 million (the “Term Loan”), provides a revolving credit facility in the maximum principal amount of \$25.0 million (“Revolving Line”) and provides a delayed draw term loan of up to \$15.0 million (the “DDTL”) to fund capital contributions to the Company’s former subsidiary, HART. The maximum amount available under the Credit Agreement is \$50.0 million as borrowings against the DDTL in excess of \$10.0 million results in a dollar for dollar reduction in the Revolving Line capacity. The Revolving Line, Term Loan and DDTL each have a maturity date of March 29, 2018 (the maturity date of the Revolving Line was extended from March 29, 2016 in connection with the Third Amendment discussed below).

On October 31, 2013, the Company amended the Credit Agreement to reduce the DDTL from up to \$15.0 million to up to \$10.0 million and allow for an additional \$5.0 million to be available for drawing as advances under the Revolving Line.

On April 24, 2015, the Company entered into the Third Amendment to the Second Amended and Restated Credit Agreement (the “Third Amendment”). The Third Amendment extended the maturity date of the Revolving Line to March 29, 2018 and reduced the interest rates on the Revolving Line, Term Loan and DDTL. Borrowings under the Term Loan and the DDTL accrued interest at a rate based on either the effective London Interbank Offered Rate



(LIBOR) for certain interest periods selected by the Company, or a daily floating rate based on the British Bankers' Association (BBA) LIBOR as published by Reuters (or other commercially available source providing quotations of BBA LIBOR), plus in either case, a margin of 2.75%. Additionally, the Revolving Line accrued interest at a rate based on either the effective LIBOR for certain interest periods selected by the Company, or a daily floating rate based on the BBA LIBOR, plus in either case, a margin of 2.25%. The Company was required to fix the rate of interest on at least 50% of the Term Loan and the DDTL through the purchase of interest rate swaps. The Term Loan and DDTL each have interest payments due at the end of the applicable LIBOR period, or monthly with respect to BBA LIBOR borrowings, and principal payments due quarterly. The Revolving Line has interest payments due at the end of the applicable LIBOR period, or monthly with respect to BBA LIBOR borrowings.

On June 30, 2015, the Company entered into the Fourth Amendment to the Second Amended and Restated Credit Agreement (the "Fourth Amendment"), which amended the Company's quarterly minimum fixed charge coverage financial covenant.

The loans evidenced by the Credit Agreement, or the Loans, are guaranteed by all of the Company's direct and indirect domestic subsidiaries, and secured by substantially all of the assets of the Company and the guarantors. The Loans are subject to restrictive covenants under the Credit Agreement, and financial covenants that require the Company and its subsidiaries to maintain certain financial ratios on a consolidated basis, including a maximum leverage, minimum fixed charge coverage and minimum working capital. Prepayment of the Loans is allowed by the Credit Agreement at any time during the terms of the Loans. The Loans also contain limitations on the Company's ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of \$6.0 million and for acquisitions funded solely with equity in excess of \$10.0 million.

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As of June 30, 2015 and December 31, 2014, the Company had borrowings of \$20.7 million and \$21.5 million, respectively, outstanding under its Credit Agreement. As of June 30, 2015, the Company was in compliance with all financial covenants contained in the Credit Agreement, was subject to covenant and working capital borrowing restrictions and had available borrowing capacity under its Credit Agreement of \$8.5 million.

As of June 30, 2015, the weighted effective interest rates on the Company's Term Loan, DDTL and Revolving Line borrowings were 3.96%, 3.43% and 2.44%, respectively.

As of June 30, 2015 and December 31, 2014, the Company's borrowings were comprised of:

	June 30, 2015 (in thousands)	December 31, 2014
Long-term debt:		
Term loan	\$8,250	\$9,750
DDTL	6,500	7,500
Revolving line	5,900	4,200
Total debt	20,650	21,450
Less: current installments	(5,000 )	(5,000 )
Long-term debt	\$15,650	\$16,450

**15. Derivatives**

The Company uses interest-rate-related derivative instruments to manage its exposure related to changes in interest rates on its variable-rate debt instruments. The Company does not enter into derivative instruments for any purpose other than cash flow hedging. The Company does not speculate using derivative instruments.

By using derivative financial instruments to hedge exposures to changes in interest rates, the Company exposes itself to credit risk and market risk. Credit risk is the failure of the counterparty to perform under the terms of the derivative contract. When the fair value of a derivative contract is positive, the counterparty owes the Company, which creates credit risk for the Company. When the fair value of a derivative contract is negative, the Company owes the counterparty and, therefore, the Company is not exposed to the counterparty's credit risk in those circumstances. The Company minimizes counterparty credit risk in derivative instruments by entering into transactions with carefully selected major financial institutions based upon their credit profile.

Market risk is the adverse effect on the value of a derivative instrument that results from a change in interest rates. The market risk associated with interest-rate contracts is managed by establishing and monitoring parameters that limit the types and degree of market risk that may be undertaken.

The Company assesses interest rate risk by continually identifying and monitoring changes in interest rate exposures that may adversely impact expected future cash flows and by evaluating hedging opportunities. The Company maintains risk management control systems to monitor interest rate risk attributable to both the Company's outstanding or forecasted debt obligations as well as the Company's offsetting hedge positions. The risk management control systems involve the use of analytical techniques, including cash flow sensitivity analysis, to estimate the expected impact of changes in interest rates on the Company's future cash flows.

The Company uses variable-rate London Interbank Offered Rate (LIBOR) debt to finance its operations. The debt obligations expose the Company to variability in interest payments due to changes in interest rates. Management believes that it is prudent to limit the variability of a portion of its interest payments. To meet this objective, management enters into LIBOR based interest rate swap agreements to manage fluctuations in cash flows resulting from changes in the benchmark interest rate of LIBOR. These swaps change the variable-rate cash flow exposure on the debt obligations to fixed cash flows. Under the terms of the interest rate swaps, the Company receives LIBOR based variable interest rate payments and makes fixed interest rate payments, thereby creating the equivalent of fixed-rate debt for the notional amount of its debt hedged. In accordance with its Credit Agreement, the Company was required to fix the rate of interest on at least 50% of its Term Loan and the DDTL through the purchase of interest rate swaps. On June 5, 2013, the Company entered into an interest rate swap contract with an original notional amount of \$15.0 million and a maturity date of March 29, 2018 in order to hedge the risk of changes in the effective benchmark interest rate (LIBOR) associated with the Company's Term Loan. On November 29, 2013, the Company entered into a second interest rate swap contract with an original notional amount of \$5.0 million and a maturity date of March 29, 2018 in order to hedge the risk of changes in the effective benchmark interest rate (LIBOR) associated with the DDTL. The notional amount of the Company's derivative instruments as of June 30, 2015 was \$11.5 million. The Term Loan swap contract converted specific variable-rate debt into fixed-rate debt and fixed the LIBOR rate associated with the Term Loan at 0.96% plus a bank margin of 3.0%. The DDTL swap contract converted specific variable-rate debt into fixed-rate debt and fixed the LIBOR rate associated with the Term Loan at 0.93% plus a bank margin of 3.0%. The interest rate swaps were designated as cash flow hedges in accordance with ASC 815, *Derivatives and Hedging*.

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The following table presents the notional amount and fair value of the Company's derivative instruments as of June 30, 2015 and December 31, 2014.

		<b>June 30, 2015</b>	<b>June 30, 2015</b>
		<b>Notional Amount</b>	<b>Fair Value (a)</b>
Derivatives designated as hedging instruments under ASC 815	Balance sheet classification		(in thousands)
Interest rate swap	Other liabilities-non current	\$ 11,500	\$ (39 )

  

		<b>December 31, 2014</b>	<b>December 31, 2014</b>
		<b>Notional Amount</b>	<b>Fair Value (a)</b>
Derivatives designated as hedging instruments under ASC 815	Balance sheet classification		(in thousands)
Interest rate swap	Other liabilities-non current	\$ 13,500	\$ (18 )

(a) See Note 16 for the fair value measurements related to these financial instruments.

All of the Company's derivative instruments are designated as hedging instruments.

The Company has structured its interest rate swap agreements to be 100% effective and as a result, there was no impact to earnings resulting from hedge ineffectiveness. Changes in the fair value of interest rate swaps designated as hedging instruments that effectively offset the variability of cash flows associated with variable-rate, long-term debt obligations are reported in accumulated other comprehensive income ("AOCI"). These amounts subsequently are reclassified into interest expense as a yield adjustment of the hedged interest payments in the same period in which the related interest affects earnings. The Company's interest rate swap agreement was deemed to be fully effective in accordance with ASC 815, and, as such, unrealized gains and losses related to these derivatives were recorded as AOCI.

The following table summarizes the effect of derivatives designated as cash flow hedging instruments and their classification within comprehensive income for the three and six months ended June 30, 2015 and 2014:

Derivatives in Hedging Relationships	Amount of gain or (loss) recognized in OCI on derivative (effective portion)	
	Three Months	Six Months Ended

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	Ended			
	June 30,		June 30,	
	2015	2014	2015	2014
	(in thousands)			
Interest rate swaps	\$(12)	\$(56)	\$(71)	\$(80)

The following table summarizes the reclassifications out of accumulated other comprehensive (loss) income for the three and six months ended June 30, 2015 and 2014:

Details about AOCI Components	Amount reclassified from AOCI into income (effective portion)				Location of amount reclassified from AOCI into income (effective portion)
	Three Months Ended		Six Months Ended		
	June 30,		June 30,		
	2015	2014	2015	2014	
	(in thousands)				
Interest rate swaps	\$ 24	\$ 34	\$ 50	\$ 69	Interest expense

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As of June 30, 2015, \$0.1 million of deferred losses on derivative instruments accumulated in AOCI are expected to be reclassified to earnings during the next twelve months. Transactions and events expected to occur over the next twelve months that will necessitate reclassifying these derivatives' losses to earnings include the repricing of variable-rate debt. There were no cash flow hedges discontinued during 2015 or 2014.

**16. Fair Value Measurements**

Fair value measurement is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. A fair value hierarchy is established, which prioritizes the inputs used in measuring fair value into three broad levels as follows:

Level 1—Quoted prices in active markets for identical assets or liabilities.

Level 2—Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly.

Level 3—Unobservable inputs based on the Company's own assumptions.

The following tables present the fair value hierarchy for those liabilities measured at fair value on a recurring basis:

(In thousands)	Fair Value as of June 30, 2015			
	Level 1	Level 2	Level 3	Total
	Liabilities:			
Interest rate swap agreements	\$-	\$39	\$-	\$39

(In thousands)	Fair Value as of December 31, 2014			
	Level 1	Level 2	Level 3	Total
	Liabilities:			
Interest rate swap agreements	\$-	\$18	\$-	\$18

The Company uses the market approach technique to value its financial liabilities. The Company's financial liabilities carried at fair value include derivative instruments used to hedge the Company's interest rate risks. The fair value of the Company's interest rate swap agreements was based on LIBOR yield curves at the reporting date.

## **17. Income Tax**

Income tax was an approximately \$0.8 million benefit and \$0.2 million expense for the three months ended June 30, 2015 and 2014, respectively. The increased tax benefit for the three months ended June 30, 2015 reflects the incremental benefit recorded for the six months ended June 30, 2015 associated with actual results for the six-month period, as described below. The effective income tax rate was 19.5% for the three months ended June 30, 2014. Discrete items included in the tax benefit for the three months ended June 30, 2015 included incentive stock option exercises partially offset by acquisition costs, the net of which was not material. Tax expense for the three months ended June 30, 2014 included a discrete item for the exercise of incentive stock options.

Income tax was an approximately \$1.1 million benefit and \$0.5 million expense for the six months ended June 30, 2015 and 2014, respectively. The effective income tax rate was 53.1% for the six months ended June 30, 2015, compared with 23.9% for the same period in 2014. The tax benefit for the six months ended June 30, 2015 was based on the actual results for the six-month period rather than an effective tax rate estimated for the entire year. The Company determined that using a year-to-date approach resulted in a better estimate of income tax expense based on its revised 2015 forecast of pre-tax income, mix of income across several jurisdictions with different statutory tax rates as well as the impact of permanent differences on its revised forecast of pre-tax income. The difference between the Company's effective tax rate year over year was primarily attributable the use of a year-to-date approach at June 30, 2015, the impact of increased research and development tax incentives and incentive stock option exercises on lower pre-tax earnings in 2015 as well as the mix of earnings between its domestic and foreign businesses, partially offset by nondeductible acquisition costs incurred versus 2014.

Table of Contents**18. Subsequent Events**

On August 3, 2015, the Compensation Committee of the Board of Directors of the Company approved and granted deferred stock awards of restricted stock units with performance based vesting conditions, to members of the Company's management team under the Third A&R Plan. The vesting of these restricted stock units is cliff-based and linked to the achievement of a relative total shareholder return of the Company's common stock from August 3, 2015 to the earlier of (i) August 3, 2018 or (ii) upon a change of control (measured relative to the Russell 3000 index and based on the 20-day trading average price before each such date). The target number of these restricted stock units that may be earned is 196,782 shares; the maximum amount is 150% of the target number.

**Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.****Forward-Looking Statements**

*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 "Exchange Act"). 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 management's confidence or expectations, 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," "seek," "expects," "plans," "aim," "anticipates," "believes," "estimates," "projects," "predicts," "intends," "think," "potential," "objectives," "optimistic," "strategy," "goals," "sees," "new," "guidance," "future," "continue," "drive," "growth," "long-term," "projects," "develop," "possible," "emerging," "opportunity," "pursue" 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. Factors that may cause our actual results to differ materially from those in the forward-looking statements include sustained uncertainty concerning government spending; economic and political conditions generally and those affecting pharmaceutical and biotechnology industries; economic, political and other risks associated with international revenues and operations; the seasonal nature of purchasing in Europe; currency exchange rate fluctuations; failure of any banking institution in which we deposit our funds or its failure to provide services; our substantial debt and our ability to meet the financial covenants contained in our credit facility; our failure to raise or generate capital necessary to implement our acquisition and expansion strategy; the failure of our spin-off of Harvard Apparatus Regenerative Technology, Inc., or HART, to qualify as a transaction that is generally tax-free for U.S. federal income tax purposes; the failure of HART to indemnify us for any liabilities associated with HART's business; unanticipated costs relating to acquisitions, unanticipated costs arising in connection with our consolidation of business functions and any restructuring initiatives; our failure to expand in Asia and other emerging markets; our inability to manage our growth; competition from our competitors; our failure to expand our product offerings, introduce new products or commercialize new technologies; technological changes resulting in our products becoming obsolete; our failure to identify potential acquisition candidates and successfully close such acquisitions with favorable pricing or integrate acquired businesses or technologies; impact of any impairment of our goodwill or intangible assets; our ability to retain key personnel; failure or inadequacy of our information technology*



*structure; rising commodity and precious metals costs; our ability to protect our intellectual property and operate without infringing on others' intellectual property; exposure to product and other liability claims; plus other factors described under the heading "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2014, or described in our other public filings. Our results may also be affected by factors of which we are not currently aware. 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, Inc., a Delaware corporation, is a global developer, manufacturer and marketer of a broad range of scientific instruments, systems and lab consumables used to advance life science for basic research, drug discovery, clinical and environmental testing. Our products are sold to thousands of researchers in over 100 countries through our global sales organization, websites, catalogs, and through distributors including Thermo Fisher Scientific Inc., VWR, GE Healthcare, and other specialized distributors. We have sales and manufacturing operations in the United States, the United Kingdom, Germany, Sweden, Spain, France, Canada, and China.

From 2009 through November 1, 2013, Harvard Bioscience's operations included two main businesses, the Life Science Research Tools business and the Regenerative Medicine Device business. In 2013, we formed and consummated the spin-off of Harvard Apparatus Regenerative Technology, Inc. ("HART") to our existing shareholders by means of a distribution of the shares we owned in HART.

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At the end of 2013 we began a multiple year restructuring program to reduce costs, align global functions, consolidate facilities, and reinvest in key areas such as sales and IT. As part of the reinvestment, we initiated a plan in 2014 to invest in and implement a new global ERP platform. During 2014, as part of the restructuring program, we initiated plans to relocate and consolidate the distribution, finance and marketing operations of our Denville Scientific facility and manufacturing operations of our Biochrom facility. During the first quarter 2015, we initiated plans to relocate the operations of our Coulbourn subsidiary to our corporate headquarters. Additionally, during the second quarter 2015, we initiated plans to relocate the operations of HEKA Electronics Incorporated, our HEKA Canada subsidiary (“HEKA Canada”), to HEKA Elektronik Dr. Schulze GmbH, our HEKA Germany subsidiary (“HEKA Germany”). We believe the restructuring program positions the Company to stabilize, focus on, and grow the life science business.

## **Our Strategy**

Our vision is to be a world leading life science company that excels in meeting the needs of our customers by providing a wide breath of innovative products and solutions, while providing exemplary customer service.

To achieve our vision, grow our top-line and bottom-line, and build shareholder value our business strategy is built on four pillars:

• commercial excellence and organic growth;

• new product development;

• acquisitions; and

• operational efficiencies.

## **Components of Operating Income**

*Revenues.* We generate revenues by selling apparatus, instruments, devices and consumables through our catalogs, our distributors, our direct sales force and our websites. Our websites and catalogs serve as the primary sales tools for our Physiology and Fluidics related product lines. These product lines include both proprietary manufactured products and complementary products from various suppliers. Our reputation as a leading producer in many of our manufactured products creates traffic to our website, enables cross-selling and facilitates the introduction of new products. We have field sales teams in the U.S., Canada, the United Kingdom, Germany, France, Spain and China. In those regions where we do not have a direct sales team, we use distributors. Revenues from direct sales to end users represented approximately 63% and 60% of our revenues for the three months ended June 30, 2015 and 2014, respectively. For the six months ended June 30, 2015 and 2014, revenues from direct sales to end users represented approximately 62% and 59% of our revenues, respectively.

Products in our Molecular and Cell analysis product lines are generally sold by distributors, and are typically priced in the range of \$5,000-\$15,000. They are mainly scientific instruments like spectrophotometers and plate readers that analyze light to detect and quantify a wide range of molecular and cellular processes, or apparatus like gel electrophoresis units. We also use distributors for both our catalog products and our higher priced products, for sales in locations where we do not have subsidiaries or where we have existing distributors in place from acquired businesses. For the three months ended June 30, 2015 and 2014, approximately 37% and 40% of our revenues, respectively, were derived from sales to distributors. For the six months ended June 30, 2015 and 2014, approximately 38% and 41% of our revenues, respectively, were derived from sales to distributors.

For the three and six months ended June 30, 2015, approximately 59% and 62% of our revenues, respectively, were derived from products we manufacture, approximately 16% and 13%, respectively, were derived from complementary products we distribute in order to provide the researcher with a single source for all equipment needed to conduct a particular experiment, and approximately 25%, for both periods, were derived from distributed products sold under our brand names. For the three and six months ended June 30, 2014, approximately 63% and 64% of our revenues, respectively, were derived from products we manufacture, approximately 11%, for both periods, were derived from complementary products we distribute in order to provide the researcher with a single source for all equipment needed to conduct a particular experiment, and approximately 26% and 25%, respectively, were derived from distributed products sold under our brand names.

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For the three months ended June 30, 2015 and 2014, approximately 42% and 39% of our revenues, respectively, were derived from sales made by our non-U.S. operations. For the six months ended June 30, 2015 and 2014, approximately 42% and 41% of our revenues, respectively, were derived from sales made by our non-U.S. operations.

Changes in the relative proportion of our revenue sources between catalog or website sales, direct sales and distribution sales are primarily the result of a different sales proportion of acquired companies.

*Cost of revenues.* Cost of revenues includes material, labor and manufacturing overhead costs, obsolescence charges, packaging costs, warranty costs, shipping costs and royalties. Our cost of revenues may vary over time based on the mix of products sold. We sell products that we manufacture and products that we purchase from third parties. The products that we purchase from third parties typically have a higher cost of revenues as a percent of revenues because the profit is effectively shared with the original manufacturer. We anticipate that our manufactured products will continue to have a lower cost of revenues as a percentage of revenues as compared with the cost of non-manufactured products for the foreseeable future. Additionally, our cost of revenues as a percent of revenues will vary based on mix of direct to end user sales and distributor sales, mix by product line and mix by geography.

*Sales and marketing expenses.* Sales and marketing expense consists primarily of salaries and related expenses for personnel in sales, marketing and customer support functions. We also incur costs for travel, trade shows, demonstration equipment, public relations and marketing materials, consisting primarily of the printing and distribution of our catalogs, supplements and the maintenance of our websites. We may from time to time expand our marketing efforts by employing additional technical marketing specialists in an effort to increase sales of selected categories of products. We may also from time to time expand our direct sales organizations in an effort to concentrate on key accounts or promote certain product lines.

*General and administrative expenses.* General and administrative expense consists primarily of salaries and other related costs for personnel in executive, finance, accounting, information technology and human resource functions. Other costs include professional fees for legal and accounting services, facility costs, investor relations, insurance and provision for doubtful accounts.

*Research and development expenses.* Research and development expense consists primarily of salaries and related expenses for personnel and spending to develop and enhance our products. Other research and development expense includes fees for consultants and outside service providers, and material costs for prototype and test units. We expense research and development costs as incurred. We believe that investment in product development is a competitive necessity and plan to continue to make these investments in order to realize the potential of new technologies that we develop, license or acquire for existing markets.

*Restructuring charges.* Restructuring charges consist of severance, other personnel-related charges and exit costs related to plans to create organizational efficiencies and reduce operating expenses.

*Stock-based compensation expenses.* Stock-based compensation expense for the three months ended June 30, 2015 and 2014 was \$0.7 million and \$0.5 million, respectively. Stock-based compensation expense for the six months ended June 30, 2015 and 2014 was \$1.3 million and \$0.9 million, respectively. The stock-based compensation expense related to stock options, restricted stock units, and the employee stock purchase plan and was recorded as a component of cost of revenues, sales and marketing expenses, general and administrative expenses and research and development expenses.

Currently, we intend to retain all of our earnings to finance the expansion and development of our business and do not anticipate paying any cash dividends to holders of our common stock in the near future. As a result, capital appreciation, if any, of our common stock will be a stockholder's sole source of gain for the near future.

### ***Bookings and Backlog***

We monitor bookings and backlog as these are indicators of future revenues and business activity levels.

Bookings were \$27.6 million and \$27.4 million for the three months ended June 30, 2015 and 2014, respectively. Excluding the effects of currency translation, our bookings increased \$1.3 million, or 4.8% quarter over quarter. Bookings were \$54.3 million and \$53.7 million for the six months ended June 30, 2015 and 2014, respectively. Excluding the effects of currency translation, our bookings increased \$2.8 million, or 5.1% from the same period in the prior year.

Our order backlog was approximately \$6.6 million and \$6.0 million as of June 30, 2015 and 2014, respectively. Excluding the effects of currency translation, our backlog increased \$0.9 million, or 14.8% from the previous year. The increase in backlog was primarily the result of our acquisitions of MCS, TBSI and HEKA and the timing of customer orders and shipments. We include in backlog only those orders for which we have received valid purchase orders. Purchase orders may be cancelled at any time prior to shipment. Our backlog as of any particular date may not be representative of actual sales for any succeeding period.

Table of Contents**Selected Results of Operations***Three Months Ended June 30, 2015 compared to Three Months Ended June 30, 2014*

	Three Months Ended		Dollar Change	%	%
	June 30, 2015	2014			
	(dollars in thousands)				
Revenues	\$28,800	\$26,958	1,842	6.8	%
Cost of revenues	16,205	14,680	1,525	10.4	%
Gross margin percentage	43.7 %	45.5 %	N/A	-4.0	%
Sales and marketing expenses	5,128	4,557	571	12.5	%
General and administrative expenses	4,922	3,997	925	23.1	%
Research and development expenses	1,714	1,284	430	33.5	%
Restructuring charges	54	115	(61 )	-53.0	%
Amortization of intangible assets	678	587	91	15.5	%

Each reporting period, we face currency exposure that arises from translating the results of our worldwide operations to the U.S. dollar at exchange rates that fluctuate from the beginning of such period. We evaluate our results of operations on both a reported and a foreign currency-neutral basis, which excludes the impact of fluctuations in foreign currency exchange rates. We believe that disclosing this non-GAAP financial information provides investors with an enhanced understanding of the underlying operations of the business. This non-GAAP financial information approximates information used by our management to internally evaluate our operating results. The non-GAAP financial information provided below should be considered in addition to, not as a substitute for, the financial information provided and presented in accordance with GAAP.

***Revenues***

Revenues for the three months ended June 30, 2015 were \$28.8 million, an increase of approximately 6.8%, or \$1.8 million compared to revenues of \$27.0 million for the three months ended June 30, 2014. Revenues for the three months ended June 30, 2015 include the acquisitions of MCS, TBSI and HEKA.

Revenues from acquisitions were offset by a negative impact of currency translation. Excluding the impact of the strengthening of the U.S. dollar, revenues increased approximately 11.5%.

Reconciliation of Changes In Revenues Compared to  
the Same Period of the Prior YearFor the Three Months Ended  
June 30, 2015

Growth	11.50	%
Foreign exchange effect	-4.70	%
Net revenue growth	6.80	%

*Cost of revenues*

Cost of revenues increased \$1.5 million, or 10.4%, to \$16.2 million for the three months ended June 30, 2015 compared with \$14.7 million for the three months ended June 30, 2014. Gross profit margin as a percentage of revenues decreased to 43.7% for the three months ended June 30, 2015 compared with 45.5% for the same quarter in 2014. The decrease in gross profit margin was due primarily to purchase accounting charges related to the fair value step-up of inventory, costs to relocate and consolidate certain facilities, less favorable product mix and unfavorable currency translation, partially offset by higher revenues and the contributions from MCS, TBSI and HEKA.

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***Sales and marketing expenses***

Sales and marketing expenses increased \$0.5 million, or 12.5%, to \$5.1 million for the three months ended June 30, 2015 compared with \$4.6 million for the three months ended June 30, 2014. The increase was primarily due to our acquisitions and higher payroll related costs, partially offset by favorable currency translation.

***General and administrative expenses***

General and administrative expenses were \$4.9 million for the three months ended June 30, 2015, an increase of \$0.9 million, or 23.1%, compared with \$4.0 million for the three months ended June 30, 2014. The increase was primarily due to our acquisitions, costs to relocate and consolidate certain facilities and higher stock compensation expense, partially offset by lower unpaid incentive bonus costs and favorable currency translation.

***Research and development expenses***

Research and development expenses were \$1.7 million for the three months ended June 30, 2015, an increase of \$0.4 million, or 33.5%, compared with \$1.3 million for the three months ended June 30, 2014. The increase was primarily due to our acquisitions, partially offset by lower unpaid incentive bonus costs and favorable currency translation.

***Restructuring***

Restructuring charges were \$54,000 for three months ended June 30, 2015 compared with \$115,000 for the three months ended June 30, 2014. Restructuring charges during the three months ended June 30, 2014 included additional charges related to the company-wide restructuring plan we implemented during the year ended December 31, 2013. The 2013 restructuring plan realigned global operations and included a reduction of our workforce of approximately 13%.

Restructuring charges recorded during the three months ended June 30, 2015 related to plans commenced during the fourth quarter of 2014 and the six months ended June 30, 2015. The 2014 restructuring plan realigned global operations and included actions to move the Biochrom and Denville operations to Holliston, MA and Charlotte, NC, respectively. The 2015 restructuring plans included actions to move the Coulbourn and operations to Holliston, MA and the HEKA Canada operations to HEKA Germany.



*Amortization of intangible assets*

Amortization of intangible asset expenses was \$0.7 million for the three months ended June 30, 2015 compared with \$0.6 million for the three months ended June 30, 2014.

*Other expense, net*

Other expense, net, was \$0.5 million for both three month periods ended June 30, 2015 and 2014. Included in both periods was interest expense of \$0.2 million and acquisition related costs of \$0.2 million.

*Income taxes*

Income tax was an approximately \$0.8 million benefit and \$0.2 million expense for the three months ended June 30, 2015 and 2014, respectively. The increased tax benefit for the three months ended June 30, 2015 reflects the incremental benefit recorded for the six months ended June 30, 2015 associated with actual results for the six-month period. Refer to the selected results of operations for the six months ended June 30, 2015 for further details. The effective income tax rate from continuing operations was 19.5% for the three months ended June 30, 2014. Discrete items included in the tax benefit for the three months ended June 30, 2015 included incentive stock option exercises partially offset by acquisition costs, the net of which was not material. Tax expense for the three months ended June 30, 2014 included a discrete item for the exercise of incentive stock options.

Table of Contents*Six Months Ended June 30, 2015 compared to Six Months Ended June 30, 2014*

	Six Months Ended June 30,		Dollar Change	% Change	
	2015	2014			
	(dollars in thousands)				
Revenues	\$54,563	\$52,851	\$1,712	3.2	%
Cost of product revenues	30,490	28,812	1,678	5.8	%
Gross margin percentage	44.1 %	45.5 %	N/A	-3.0	%
Sales and marketing expenses	10,327	8,989	1,338	14.9	%
General and administrative expenses	9,753	8,248	1,505	18.2	%
Research and development expenses	3,462	2,257	1,205	53.4	%
Restructuring charges	111	252	(141 )	-56.0	%
Amortization of intangible assets	1,471	1,221	250	20.5	%

Each reporting period, we face currency exposure that arises from translating the results of our worldwide operations to the U.S. dollar at exchange rates that fluctuate from the beginning of such period. We evaluate our results of operations on both a reported and a foreign currency-neutral basis, which excludes the impact of fluctuations in foreign currency exchange rates. We believe that disclosing this non-GAAP financial information provides investors with an enhanced understanding of the underlying operations of the business. This non-GAAP financial information approximates information used by our management to internally evaluate our operating results. The non-GAAP financial information provided below should be considered in addition to, not as a substitute for, the financial information provided and presented in accordance with GAAP.

**Revenues**

Revenues for the six months ended June 30, 2015 were \$54.6 million, an increase of approximately 3.2%, or \$1.7 million compared to revenues of \$52.9 million for the six months ended June 30, 2014. Revenues for the six months ended June 30, 2015 include the acquisitions of MCS, TBSI and HEKA.

Revenues from acquisitions were offset by a negative impact of currency translation. Excluding the impact of the strengthening of the U.S. dollar, revenues increased approximately 7.7%.

Reconciliation of Changes In  
Revenues Compared to the Same

## Period of the Prior Year

For the  
Six  
Months  
Ended  
June 30,  
2015

Growth	7.70 %
Foreign exchange effect	-4.50%
Net revenue growth	3.20 %

***Cost of revenues***

Cost of revenues increased \$1.7 million, or 5.8%, to \$30.5 million for the six months ended June 30, 2015 compared with \$28.8 million for the six months ended June 30, 2014. Gross profit margin as a percentage of revenues decreased to 44.1% for the six months ended June 30, 2015 compared with 45.4% for the same period in 2014. The decrease in gross profit margin was due primarily to purchase accounting charges related to the fair value step-up of inventory, costs to relocate and consolidate certain facilities, less favorable product mix and unfavorable currency translation, partially offset by higher revenues and the contributions from MCS, TBSI and HEKA.

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***Sales and marketing expenses***

Sales and marketing expenses increased \$1.3 million, or 14.9%, to \$10.3 million for the six months ended June 30, 2015 compared with \$9.0 million for the six months ended June 30, 2014. The increase was primarily due to our acquisitions and higher payroll related costs, partially offset by favorable currency translation.

***General and administrative expenses***

General and administrative expenses were \$9.8 million for the six months ended June 30, 2015, an increase of \$1.6 million, or 18.2%, compared with \$8.2 million for the six months ended June 30, 2014. The increase was primarily due to our acquisitions and higher stock compensation expense, partially offset by lower unpaid incentive bonus costs and favorable currency translation.

***Research and development expenses***

Research and development expenses were \$3.5 million for the six months ended June 30, 2015, an increase of \$1.2 million, or 53.4%, compared with \$2.3 million for the six months ended June 30, 2014. The increase was primarily due to our acquisitions, partially offset by lower unpaid incentive bonus costs and favorable currency translation.

***Restructuring***

Restructuring charges were \$0.1 million for six months ended June 30, 2015 compared with \$0.3 million for the six months ended June 30, 2014. Restructuring charges during the six months ended June 30, 2014 included additional charges related to the company-wide restructuring plan we implemented during the year ended December 31, 2013. The 2013 restructuring plan realigned global operations and included a reduction of our workforce of approximately 13%.

Restructuring charges recorded during the six months ended June 30, 2015 related to plans commenced during the fourth quarter of 2014 and the six months ended June 30, 2015. The 2014 restructuring plan realigned global operations and included actions to move the Biochrom and Denville operations to Holliston, MA and Charlotte, NC, respectively. The 2015 restructuring plans included actions to move the Coulbourn and operations to Holliston, MA and the HEKA Canada operations to HEKA Germany.

*Amortization of intangible assets*

Amortization of intangible asset expenses was \$1.5 million for the six months ended June 30, 2015 compared with \$1.2 million for the six months ended June 30, 2014.

*Other expense, net*

Other expense, net, was \$1.1 million and \$0.8 million for the six months ended June 30, 2015 and 2014, respectively. Interest expense was \$0.4 million for the six months ended June 30, 2015 compared to \$0.5 million for the six months ended June 30, 2014. The increase in other expense, net was primarily due to \$0.8 million in acquisition related costs incurred during the six months ended June 30, 2015 compared to \$0.2 million for the six months ended June 30, 2014, partially offset by currency exchange rate fluctuations. Currency exchange rate fluctuations included as a component of net income (loss) resulted in approximately \$0.1 million in currency gains during the six months ended June 30, 2015, compared to \$0.1 million in foreign currency losses during the six months ended June 30, 2014.

*Income taxes*

Income tax was an approximately \$1.1 million benefit and \$0.5 million expense for the six months ended June 30, 2015 and 2014, respectively. The effective income tax rate was 53.1% for the six months ended June 30, 2015, compared with 23.9% for the same period in 2014. The tax benefit for the six months ended June 30, 2015 was based on the actual results for the six-month period rather than an effective tax rate estimated for the entire year. We determined that using a year-to-date approach resulted in a better estimate of income tax expense based on our revised 2015 forecast of pre-tax income, mix of income across several jurisdictions with different statutory tax rates as well as the impact of permanent differences on our revised forecast of pre-tax income. The difference between our effective tax rate year over year was primarily attributable the use of a year-to-date approach at June 30, 2015, the impact of increased research and development tax incentives and incentive stock option exercises on lower pre-tax earnings in 2015 as well as the mix of earnings between its domestic and foreign businesses, partially offset by nondeductible acquisition costs incurred versus 2014.

Table of Contents***Liquidity and Capital Resources***

Historically, we have financed our business through cash provided by operating activities, the issuance of common stock, and bank borrowings. Our liquidity requirements arise primarily from investing activities, including funding of acquisitions, and other capital expenditures. As previously discussed, on October 1, 2014, we acquired all of the issued and outstanding shares of two life science companies, MCS and TBSI, for approximately \$12.7 million, net of cash acquired. We funded the acquisitions of MCS and TBSI from our existing cash balances and borrowings under our credit facility, respectively. Additionally, on January 8, 2015, we acquired all of the issued and outstanding shares of HEKA for approximately \$4.5 million, net of cash acquired. We funded the acquisition from our existing cash balances.

As of June 30, 2015, we held cash and cash equivalents of \$7.4 million, compared with \$14.1 million at December 31, 2014. As of June 30, 2015 and December 31, 2014, we had \$20.7 million and \$21.5 million, respectively, of borrowings outstanding under our credit facility. Total debt, net of cash and cash equivalents was \$13.2 million at June 30, 2015, compared to \$7.3 million at December 31, 2014. In addition, we had an underfunded U.K. pension liability of approximately \$4.6 million and \$4.4 million at June 30, 2015 and December 31, 2014, respectively.

As of June 30, 2015 and December 31, 2014, cash and cash equivalents held by our foreign subsidiaries was \$6.0 million and \$12.7 million, respectively. These funds are not available for domestic operations unless the funds are repatriated. If we planned to or did repatriate these funds, then U.S. federal and state income taxes would have to be recorded on such amounts. We currently have no plans and do not intend to repatriate any of our undistributed foreign earnings. These balances are considered permanently reinvested and will be used for foreign items including foreign acquisitions, capital investments, pension obligations and operations. It is impracticable to estimate the total tax liability, if any, which would be created by the future distribution of these earnings. In January 2015, we acquired all the issued and outstanding shares of HEKA, and utilized approximately \$5.9 million of our foreign cash on hand.

Condensed Cash Flow Statements  
(unaudited)

	Six Months Ended	
	June 30,	
	2015	2014
	(in thousands)	
Cash flows from operations:		
Net (loss) income	\$(1,052)	\$1,741
Changes in assets and liabilities	(2,402)	(2,024)
Other adjustments to operating cash flows	2,473	2,769
Net cash (used in) provided by operating activities	(981 )	2,486
Investing activities:		
Additions to property, plant and equipment	(1,640)	(744 )

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Acquisitions, net of cash acquired	(4,545)	-
Other investing activities	15	78
Net cash used in investing activities	(6,170)	(666 )
Financing activities:		
Net repayments of debt	(800 )	(2,500)
Net proceeds from issuance of common stock	1,864	1,001
Other financing activities	(32 )	-
Net cash provided by (used in) financing activities	1,032	(1,499)
Effect of exchange rate changes on cash	(613 )	342
(Decrease) increase in cash and cash equivalents	\$(6,732)	\$663

Our operating activities used cash of \$1.0 million for the six months ended June 30, 2015, compared with cash provided by operating activities of \$2.5 million for the six months ended June 30, 2014. The decrease in cash flows from operations was primarily due to lower net income year over year.

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Our investing activities used cash of \$6.2 million during the six months ended June 30, 2015, compared to \$0.7 million for the six months ended June 30, 2014. Investing activities during six months ended June 30, 2015 included cash used for acquisitions net of cash acquired, purchases of property, plant and equipment, and proceeds from the sale of property, plant and equipment. Investing activities during six months ended June 30, 2014 included purchases of property, plant and equipment and proceeds from the sale of property, plant and equipment. In January 2015, we acquired HEKA for approximately \$4.5 million, net of cash acquired. We spent \$1.6 million and \$0.7 million on capital expenditures during the six months ended June 30, 2015 and 2014, respectively. The increase in capital expenditures year over year was due to the year-to-date investment in implementing a new enterprise resource planning (“ERP”) platform, as well as capital spend to relocate our Denville distribution business and UK manufacturing operations to North Carolina and Holliston, MA, respectively.

Our financing activities have historically consisted of borrowings and repayments under our revolving credit facility and term loans, payments of debt issuance costs and the issuance of common stock. During the six months ended June 30, 2015, financing activities provided cash of \$1.0 million, compared with \$1.5 million of cash used by financing activities for the six months ended June 30, 2014. During the six months ended June 30, 2015, we borrowed \$4.1 million under our credit facility, repaid \$4.9 million of debt under our credit facility and term loans and ended the quarter with \$20.7 million of borrowings. Net proceeds from the issuance of common stock for the six months ended June 30, 2015 was \$1.9 million, which related to the exercise of stock options. During the six months ended June 30, 2014, we repaid \$2.5 million of debt under our credit facility and term loans, and ended the quarter with \$22.3 million of borrowings. Net proceeds from the issuance of common stock for the six months ended June 30, 2014 was \$1.0 million, which related to the exercise of stock options.

### ***Borrowing Arrangements***

On August 7, 2009, we entered into an Amended and Restated Revolving Credit Loan Agreement related to a \$20.0 million revolving credit facility with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co as lenders (as amended, the “2009 Credit Agreement”). On September 30, 2011, we entered into the First Amendment to the Amended and Restated Revolving Credit Loan Agreement (the “First Amendment”) with Bank of America as agent, and Bank of America and Brown Brothers Harriman & Co as lenders. The First Amendment extended the maturity date of our credit facility to August 7, 2013 and reduced the interest rate to the London Interbank Offered Rate plus 3.0%. On October 4, 2012, we entered into the Second Amendment to the Amended and Restated Revolving Credit Loan Agreement (the “Second Amendment”) with Bank of America as agent, and Bank of America and Brown Brothers Harriman & Co as lenders. The Second Amendment extended the maturity date of our credit facility to August 7, 2014.

On March 29, 2013, we entered into a Second Amended and Restated Revolving Credit Agreement (as amended, the “Credit Agreement”) with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co as lenders, that amended and restated the 2009 Credit Agreement. The Credit Agreement converted our existing outstanding revolving advances into a term loan in the principal amount of \$15.0 million (the “Term Loan”), provided a revolving credit facility in the maximum principal amount of \$25.0 million (“Revolving Line”) and provided a delayed draw term loan of up to \$15.0 million (the “DDTL”) to fund our capital contributions to HART. The maximum amount available under the Credit Agreement is \$50.0 million as borrowings against the DDTL in excess of \$10.0 million



result in a dollar for dollar reduction in the Revolving Line capacity. The Revolving Line, Term Loan and DDTL each have a maturity date of March 29, 2018 (the maturity date of the Revolving Line was extended from March 29, 2016 in connection with the Third Amendment discussed below).

On October 31, 2013, we amended the Credit Agreement to reduce the DDTL from up to \$15.0 million to up to \$10.0 million and allow for an additional \$5.0 million to be available for drawing as advances under the Revolving Line.

On April 24, 2015, we entered into the Third Amendment to the Second Amended and Restated Credit Agreement (the "Third Amendment"), which extended the maturity date of the Revolving Line to March 29, 2018 and reduced the interest rates on the Revolving Line, Term Loan and DDTL. Borrowings under the Term Loan and the DDTL accrued interest at a rate based on either the effective London Interbank Offered Rate (LIBOR) for certain interest periods selected by us, or a daily floating rate based on the British Bankers' Association (BBA) LIBOR as published by Reuters (or other commercially available source providing quotations of BBA LIBOR), plus in either case, a margin of 2.75%. Prior to the Third Amendment, the Revolving Line accrued interest at a rate based on either the effective LIBOR for certain interest periods selected by us, or a daily floating rate based on the BBA LIBOR, plus in either case, a margin of 2.25%. We were required to fix the rate of interest on at least 50% of the Term Loan and the DDTL through the purchase of interest rate swaps. The Term Loan and DDTL each have interest payments due at the end of the applicable LIBOR period, or monthly with respect to BBA LIBOR borrowings, and principal payments due quarterly. The Revolving Line has interest payments due at the end of the applicable LIBOR period, or monthly with respect to BBA LIBOR borrowings.

On June 30, 2015, we entered into the Fourth Amendment to the Second Amended and Restated Credit Agreement (the "Fourth Amendment"), which amended our quarterly minimum fixed charge coverage financial covenant.

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At June 30, 2015, the weighted effective interest rates on the Term Loan, DDTL and Revolving Line borrowings were 3.96%, 3.43% and 2.44%, respectively. The Credit Agreement includes covenants relating to income, debt coverage and cash flow, as well as minimum working capital requirements. The Credit Agreement also contains limitations on our ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of \$6.0 million and for acquisitions funded solely with equity in excess of \$10.0 million. As of June 30, 2015, we were in compliance with all financial covenants contained in the Credit Agreement; we were subject to covenant and working capital borrowing restrictions, and had available borrowing capacity under the Credit Agreement of \$8.5 million.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary as a result of a number of factors. Based on our current operations and current operating plans, we expect that our available cash, cash generated from current operations and debt capacity will be sufficient to finance current operations, any potential future acquisitions and capital expenditures for the next 12 months and beyond. This may involve incurring additional debt or raising equity capital for our business. Additional capital raising activities will dilute the ownership interests of existing stockholders to the extent we raise capital by issuing equity securities and we cannot guarantee that we will be successful in raising additional capital on favorable terms or at all.

### **Critical Accounting Policies**

The critical accounting policies underlying the accompanying unaudited consolidated financial statements are those set forth in Part II, Item 7 included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2014, which was filed with the SEC on March 12, 2015.

### **Impact of Foreign Currencies**

Our international operations in some instances operate in a natural hedge as we sell our products in many countries and a substantial portion of our revenues, costs and expenses are denominated in foreign currencies, especially the British pound sterling, the Euro, the Canadian dollar and the Swedish krona.

For the six months ended June 30, 2015, the U.S dollar's strengthening in relation to those currencies resulted in an unfavorable translation effect on our consolidated revenues and on our consolidated net loss. Changes in foreign currency exchange rates resulted in an unfavorable effect on revenues of approximately \$2.4 million and a favorable effect on expenses of approximately \$2.1 million. Conversely, changes in foreign currency exchange rates resulted in a favorable effect on revenues of approximately \$1.2 million and an unfavorable effect on expenses of approximately \$1.0 million for the six months ended June 30, 2014.

The gain and loss associated with the translation of foreign equity into U.S. dollars included as a component of comprehensive income, was approximately \$1.8 million and \$2.7 million for the three and six months ended June 30, 2015, respectively, compared to a gain of \$0.4 million and \$0.6 million for the three and six months ended June 30, 2014, respectively.

In addition, currency exchange rate fluctuations included as a component of net income (loss) resulted in approximately \$134,000 million in currency losses and \$89,000 in currency gains during the three and six months ended June 30, 2015, respectively, compared to \$67,000 and \$148,000 in foreign currency losses during the three and six months ended June 30, 2014, respectively.

### **Recently Issued Accounting Pronouncements**

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, "*Revenue from Contracts with Customers*," a new accounting standard that provides for a comprehensive model to use in the accounting for revenue arising from contracts with customers that will replace most existing revenue recognition guidance in U.S. GAAP. Under this standard, revenue will be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which we expect to be entitled in exchange for those goods or services. At its July 2015 meeting, the FASB agreed to defer the mandatory effective date of ASU 2014-09 one year. Under the one year deferral, the standard will take effect in 2018 for calendar year-end public entities. We are assessing the new standard and have not yet determined the impact to our consolidated financial statements.

In April 2015, the FASB issued ASU 2015-03, *Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs*. The update requires debt issuance costs related to a recognized debt liability to be presented in the balance sheet as a direct deduction from the carrying amount of the related debt liability, instead of being presented as an asset. Debt disclosures will include the face amount of the debt liability and the effective interest rate. The update requires retrospective application and represents a change in accounting principle. The update is effective for fiscal years beginning after December 15, 2015. Early adoption is permitted for financial statements that have not been previously issued. We are evaluating the impact of ASU 2015-03 on our consolidated financial statements and the possibility of early adoption thereof.

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In July 2015, the FASB issued ASU 2015-11, *Simplifying Measurement of Inventory*. The update requires measurement of most inventory “at the lower of cost and net realizable value”, and applies to all entities that recognize inventory within the scope of ASC 330, except for inventory measured under the last-in, first-out (LIFO) method or the retail inventory method (RIM). ASU 2015-11 requires prospective application and represents a change in accounting principle. The update is effective for fiscal years beginning after December 15, 2016. Early adoption is permitted for financial statements that have not been previously issued. We are evaluating the impact of ASU 2015-11 on our consolidated financial statements and the possibility of early adoption thereof.

**Item 3. *Quantitative and Qualitative Disclosures about Market Risk.***

The majority of our manufacturing and testing of products occurs in our facilities in the United States, the United Kingdom, Germany, Sweden and Spain. We sell our products globally through our direct catalog sales, our websites, direct sales force and indirect distributor channels. 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.

We are exposed to market risk from changes in interest rates primarily through our financing activities. As of June 30, 2015, we had \$20.7 million outstanding under our Credit Agreement. The purpose of the Credit Agreement was to convert our existing outstanding revolving advances into a Term Loan in the principal amount of \$15.0 million, provide a Revolving Line facility in the maximum principal amount of \$25.0 million, and provide a DDTL of up to \$10.0 million, reduced from \$15.0 million as discussed below, to fund capital contributions to our subsidiary, HART. The Revolving Line has a maturity date of March 29, 2016, while the Term Loan and DDTL have a maturity date of March 29, 2018. On October 31, 2013, we amended the Credit Agreement to reduce the DDTL from up to \$15.0 million to up to \$10.0 million and allow for an additional \$5.0 million to be available for drawing as advances under the Revolving Line.

Prior to the Third Amendment, borrowings under the Term Loan and the DDTL accrued interest at a rate based on either the effective London Interbank Offered Rate (LIBOR) for certain interest periods selected by us, or a daily floating rate based on the BBA LIBOR as published by Reuters (or other commercially available source providing quotations of BBA LIBOR), plus in either case, a margin of 3.0%. Prior to the Third Amendment, the Revolving Line accrued interest at a rate based on either the effective LIBOR for certain interest periods selected by us, or a daily floating rate based on the BBA LIBOR, plus in either case, a margin of 2.5%. We were required to fix the rate of interest on at least 50% of the Term Loan and the DDTL through the purchase of an interest rate swap. The Term Loan and DDTL each have interest payments due at the end of the applicable LIBOR period, or monthly with respect to BBA LIBOR borrowings, and principal payments are due quarterly. The Revolving Line has interest payments due at the end of the applicable LIBOR period, or monthly with respect to BBA LIBOR borrowings. Effective June 5, 2013, we entered into an interest rate swap contract with an original notional amount of \$15.0 million and a maturity

date of March 29, 2018 in order to hedge the risk of changes in the effective benchmark interest rate (LIBOR) associated with our Term Loan. The swap contract converted specific variable-rate debt into fixed-rate debt and fixed LIBOR associated with the Term Loan at 0.96% plus a bank margin of 3.0%. Effective November 29, 2013, we entered into a second interest rate swap contract with an original notional amount of \$5.0 million and a maturity date of March 29, 2018 in order to hedge the risk of changes in LIBOR associated with a portion of our DDTL. The swap contract converted specific variable-rate debt into fixed rate debt and fixed LIBOR associated with half of the DDTL amount at 0.93% plus a bank margin of 3.0%. The notional amount of our derivative instruments as of June 30, 2015 was \$11.5 million. These swap contracts were associated with reducing or eliminating interest rate risk and were designated as cash flow hedge instruments in accordance with ASC 815. We use interest-rate-related derivative instruments to manage our exposure related to changes in interest rates on our variable-rate debt instruments. We do not enter into derivative instruments for any purpose other than cash flow hedging and we do not speculate using derivative instruments.

On April 24, 2015, we entered the Third Amendment which extended the maturity date of the Revolving Line to March 29, 2018 and reduced the interest rate to the London Interbank Offered Rate plus 2.25%, 2.75% and 2.75% on the Revolving Line, Term Loan and DDTL, respectively.

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As of June 30, 2015, the weighted effective interest rates on our Term Loan , DDTL and Revolving Line borrowings were 3.96%, 3.43% and 2.44%, respectively. Assuming no other changes which would affect the margin of the interest rate under our Term Loan, DDTL and Revolving Line, the effect of interest rate fluctuations on outstanding borrowings under our Credit Agreement as of June 30, 2015 over the next twelve months is quantified and summarized as follows:

If compared to the rate as of June 30, 2015	Interest expense increase (in thousands)
Interest rates increase by 1%	\$ 92
Interest rates increase by 2%	\$ 183

**Item 4. Controls and Procedures.**

Disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) are designed to ensure that information required to be disclosed in reports filed or submitted under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms and that such information is accumulated and communicated to management, including the Chief Executive Officer and the Chief Financial Officer, to allow timely decisions regarding required disclosures.

As required by Rules 13a-15(e) and 15d-15(e) under the Exchange Act, our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of June 30, 2015. Our disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and our management necessarily was required to apply its judgment in evaluating and implementing our disclosure controls and procedures. Based upon the evaluation described above, our Chief Executive Officer and Chief Financial Officer have concluded that they believe that our disclosure controls and procedures were effective, as of the end of the period covered by this Quarterly Report on Form 10-Q, in providing reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosures, and is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

We continue to review our internal controls over financial reporting, and may from time to time make changes aimed at enhancing their effectiveness and to ensure that our systems evolve with our business. These efforts have led to various changes in our internal controls over financial reporting. There were no changes in our internal controls over financial reporting that occurred during the six months ended June 30, 2015 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. During six months ended June 30,

2015, we launched the first live phase of our Enterprise Resource Planning, or ERP, system implementation. In subsequent periods, the remaining phases of the ERP system implementation will be launched. While the implementation automated certain manual internal controls, it did not materially affect our internal control over financial reporting.

## **PART II. OTHER INFORMATION**

### **Item 1A. *Risk Factors.***

To our knowledge, and except to the extent additional factual information disclosed in this Quarterly Report on Form 10-Q relates to such risk factors, there has been no material changes in the risk factors described in “Item 1A. Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2014, which was filed with the SEC on March 12, 2015.

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**Item 6. Exhibits**

**Exhibit**

**Index**

- 10.1 Third Amendment to Second Amended and Restated Credit Agreement between Harvard Bioscience, Inc., Bank of America N.A. and Brown Brothers Harriman & Co., dated April 24, 2015.
- 10.2 Fourth Amendment to Second Amended and Restated Credit Agreement between Harvard Bioscience, Inc., Bank of America N.A. and Brown Brothers Harriman & Co., dated June 30, 2015.
- 31.1 Certification of Chief Financial Officer of Harvard Bioscience, Inc., pursuant to Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of Chief Executive Officer of Harvard Bioscience, Inc., pursuant to Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1\* Certification of Chief Financial Officer of Harvard Bioscience, Inc., pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2\* Certification of Chief Executive Officer of Harvard Bioscience, Inc., pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 101.INS XBRL Instance Document
- 101.SCH XBRL Taxonomy Extension Schema Document
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document
- 101.LAB XBRL Taxonomy Extension Labels Linkbase Document
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document

This certification shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or \*otherwise subject to the liability of that section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.



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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by undersigned thereunto duly authorized.

Date: August 6, 2015

HARVARD BIOSCIENCE, INC.

By: /s/ JEFFREY A. DUCHEMIN

**Jeffrey A. Duchemin**  
**Chief Executive Officer**

By: /s/ ROBERT E. GAGNON

**Robert E. Gagnon**  
**Chief Financial Officer**

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