

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 8-K
(Amendment No. 1)**

CURRENT REPORT

**Pursuant to Section 13 or 15(d) of
The Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): February 28, 2019

HARVARD BIOSCIENCE, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction
of incorporation)

001-33957

(Commission File Number)

04-3306140

(IRS Employer Identification No.)

84 October Hill Road, Holliston, MA

(Address of principal executive offices)

01746

(Zip Code)

Registrant's telephone number, including area code: **(508) 893-8999**

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter). Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Explanatory Note

On February 28, 2019, Harvard Bioscience, Inc. issued an earnings press release announcing its financial results for the three months and year ended December 31, 2018. A copy of the earnings release was furnished with a Current Report on Form 8-K on February 28, 2019 (the “Original Form 8-K”). This Amendment No. 1 on Form 8-K/A is being filed to amend Items 2.02, and 9.01 of the Original Form 8-K, solely for the purpose of updating information relating to the GAAP net income for the three months ended December 31, 2018 and the GAAP net loss for the year ended December 31, 2018, as described below (this amendment, the “Amended Form 8-K”).

Item 2.02 Results of Operations and Financial Conditions.

On February 28, 2019, Harvard Bioscience, Inc. issued an earnings press release announcing its financial results for the three months and year ended December 31, 2018 (the “Original Press Release”). Information regarding the GAAP net income and GAAP net loss incorrectly included immaterial amounts in the “other expense, net” line of the consolidated statements of operations. The Company has prepared and furnished, as Exhibit 99.1 to this Amendment No. 1 on Form 8-K/A, a restated earnings release, which indicates the corrected information, including the GAAP net income and GAAP net loss for the three months and year ended December 31, 2018, respectively (the “Restated Earnings Release”). The adjustments did not impact the Company’s non-GAAP financial results reported in the Original Press Release. The Restated Earnings Release is furnished as Exhibit 99.1 to this Amendment No. 1 on Form 8-K/A and is incorporated herein by reference.

The information in Item 2.02 of this Current Report on Form 8-K and Exhibit 99.1 attached hereto shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934 (the “Exchange Act”) or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Number	Title
99.1	Restated Earnings Release prepared and furnished by Harvard Bioscience, Inc.

SIGNATURE

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

HARVARD BIOSCIENCE, INC.

(Registrant)

March 18, 2019

(Date)

/s/ KAM UNNINAYAR

Kam Unninayar

Chief Financial Officer



INDEX TO EXHIBITS

**Exhibit
Number**

Description of Exhibit

[99.1](#)

[Restated Earnings Release prepared and furnished by Harvard Bioscience, Inc.](#)



FOR IMMEDIATE RELEASE
CONTACTS:

Corey Manchester
Corporate Controller

Tel: 508 893 8999

Harvard Bioscience Reports Strong Fourth Quarter and Year-End 2018 Results, and Issues 2019 Financial Guidance

-Reports record Fourth Quarter GAAP and adjusted non-GAAP revenue of \$33.9 million, a year-over-year increase of 56% and 24%, respectively-

HOLLISTON, MA – February 28, 2019 -- Harvard Bioscience, Inc. (Nasdaq: HBIO) (the “Company”), a global developer, manufacturer and marketer of a broad range of solutions to advance life science, reported its financial results for the fourth quarter and full year ended December 31, 2018.

“I am extremely proud of our team’s fourth quarter execution. In addition to strong growth in adjusted gross profit, adjusted operating income, and adjusted earnings per share, we also reported record quarterly revenue of \$33.9 million”, said Jeffrey Duchemin, President and CEO of Harvard Bioscience. “Our strong fourth quarter results reflect our successful integration of our acquisition of Data Sciences International (DSI) while continuing to execute on our overall strategy. Looking back at 2018, we successfully transformed Harvard Bioscience into a pure play life science instrumentation company with the acquisition of DSI and sale of Denville Scientific. It was also a great year for innovation with product launches in telemetry, electrophysiology, and electroporation, expanding our applications in key life science research markets in order to better serve our customers.”

Mr. Duchemin concluded, “Our fourth quarter results closed out a historical year for Harvard Bioscience, a true inflection point in the history of our organization. Today we are more confident than ever of our position to achieve our growth goals in the year ahead.”

Fourth Quarter Reported Results

Revenue, as measured under generally accepted accounting principles, or GAAP, for the three months ended December 31, 2018 was \$33.9 million, an increase of 56%, or \$12.2 million, compared to revenue of \$21.6 million for the three months ended December 31, 2017.

Revenue, on a non-GAAP basis, which includes revenue generated by Denville Scientific, Inc., or Denville, for the periods presented prior to its sale, and excludes purchase accounting adjustments, was \$33.9 million for the three months ended December 31, 2018, an increase of approximately 24%, or \$6.5 million, compared to revenue of \$27.5 million for the three months ended December 31, 2017. For a reconciliation between GAAP and non-GAAP revenue and changes in revenue, refer to Exhibit 4 below.

Net income, as measured under GAAP, was \$2.9 million, or \$0.08 per diluted share, for the three months ended December 31, 2018 compared to net income of \$1 million, or \$0.03 per diluted share, for the same quarter in 2017. Net income for the three months ended December 31, 2018 was comprised of income of \$3.3 million from continuing operations and a loss of \$0.4 million from discontinued operations. Net income for the three months ended December 31, 2017 was comprised of a loss of \$11,000 from continuing operations and income of \$1.0 million from discontinued operations.

Net income, on a non-GAAP basis, was \$2.8 million, or \$0.07 per diluted share, for the three months ended December 31, 2018, compared to \$1.7 million, or \$0.05 per diluted share, for the three months ended December 31, 2017. For a reconciliation between GAAP and non-GAAP net income, and between GAAP and non-GAAP diluted earnings per share, refer to Exhibits 7 and 8 below, respectively.

Year-to-Date Reported Results

Revenue, as measured under GAAP, for the year ended December 31, 2018 were \$120.8 million, an increase of approximately 56%, or \$43.4 million, compared to revenues of \$77.4 million for the year ended December 31, 2017.

Revenue, on a non-GAAP basis, which includes revenue generated by Denville for the periods presented prior to its sale, and excludes purchase accounting adjustments, was \$122.0 million for the year ended December 31, 2018, an increase of approximately 20%, or \$20.1 million, compared to revenue of \$101.9 million for the year ended December 31, 2017. For a reconciliation between GAAP and non-GAAP revenue and changes in revenue, refer to Exhibit 4 below.

Net loss, as measured under GAAP, was \$2.9 million, or \$0.08 per diluted share, for the year ended December 31, 2018 compared to \$0.9 million, or \$0.02 per diluted share, for the year ended December 31, 2017. The net loss for the year ended December 31, 2018 was comprised of a \$4.3 million loss from continuing operations and income of \$1.4 million from discontinued operations. The net loss for the year ended December 31, 2017 was comprised of a \$2.0 million loss from continuing operations and income of \$1.2 million from discontinued operations.

Net income, on a non-GAAP basis, was \$7.4 million, or \$0.20 per diluted share, for the year ended December 31, 2018 compared to \$4.2 million, or \$0.12 per diluted share, for the same period in 2017. For a reconciliation between GAAP and non-GAAP net income, and between GAAP and non-GAAP diluted earnings per share, refer to Exhibits 7 and 8 below, respectively.

Financial Guidance

The Company is providing financial guidance for the full-year 2019. The Company expects annual revenue to be between \$124 million and \$126.5 million.

The Company expects to report full-year 2019 GAAP diluted earnings per share of approximately \$0.03 to \$0.05 and non-GAAP diluted earnings per share of \$0.21 to \$0.23.

The Company may incur charges, realize gains, or experience other events in 2019 that could cause actual results to vary from this guidance. Refer to Exhibit 9 below for a reconciliation between the GAAP and non-GAAP diluted earnings per share guidance.

Conference Call Details

Harvard Bioscience will be hosting a conference call and webcast today at 4:30 pm ET. On that call, management may respond to questions from the audience and provide information on any of a number of topics related to the business, including operations, plans and outlook.

Participating in the call will be Jeffrey A. Duchemin, President and Chief Executive Officer, and Kam Unninayar, Chief Financial Officer of Harvard Bioscience. Investors can access the live conference call by dialing the following phone numbers: toll-free 1-888-771-4371, or international: 1-847-585-4405, and referencing the conference ID# 48285922.

The conference will be simultaneously webcast and can be accessed through the Harvard Bioscience website. To listen to the webcast, log on to the webcast at <http://investor.harvardbioscience.com/> and click on the Earnings Call icon. Financial information presented on the call, including the earnings release, will also be available on the investor relations section of the website.

If you are unable to listen to the live conference call, the webcast will be available on the Company's website through March 7, 2019.

To add this meeting to your calendar visit: <http://investor.harvardbioscience.com/> and click "remind me".

Use of Non-GAAP Financial Information

In this press release, we have included non-GAAP financial information including adjusted revenue, adjusted gross profit, adjusted operating income, adjusted net income and adjusted earnings per diluted share. We believe that this non-GAAP financial information provides investors with an enhanced understanding of the underlying operations of the business. For the periods presented, these non-GAAP financial measures of revenue and income have excluded certain revenue and expenses and income primarily resulting from purchase accounting or events that we do not believe are related to the underlying operations of the business such as currency translation, amortization of intangibles related to acquisitions, costs related to acquisition, disposition and integration initiatives, impairment charges, gains or losses from divestitures, forensic investigation and remediation costs, severance and restructuring expenses, and stock-based compensation expense. They also exclude the tax impact of the reconciling items. This non-GAAP financial information approximates information used by our management to internally evaluate the operating results of the Company. Tabular reconciliations of our non-GAAP adjusted revenue, non-GAAP adjusted gross profit, non-GAAP adjusted operating income, non-GAAP adjusted net income and non-GAAP adjusted earnings per diluted share for the three months and years ended December 31, 2018 and 2017 are included as exhibits below in this press release.

The non-GAAP financial information provided in this press release should be considered in addition to, not as a substitute for, the financial information provided and presented in accordance with GAAP.

About Harvard Bioscience

Harvard Bioscience is a global developer, manufacturer and marketer of a broad range of solutions to advance life science. 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. For more information, please visit our website at www.harvardbioscience.com.

Safe Harbor Statement

This press release contains forward-looking statements within the meaning of the federal securities laws. You can identify these statements by our use of such words as "will," "guidance," "objectives," "optimistic," "potential," "future," "expects," "plans," "estimates," "continue," "drive," "strategy," "potential," "potentially," "growth," "long-term," "projects," "projected," "intends," "believes," "goals," "sees," "seek," "develop" "possible" "new," "emerging," "opportunity," "pursue" and similar expressions that do not relate to historical matters. Forward-looking statements in this press release or that may be made during our conference call may include, but are not limited to, statements or inferences about the Company's or management's beliefs or expectations, the Company's anticipated future revenues and earnings, the strength of the Company's market position and business model, the impact of acquisitions, or potential acquisitions, the outlook for the life sciences industry, the Company's business strategy, the positioning of the Company for growth, the market demand and opportunity for the Company's current products, or products it is developing or intends to develop, and the Company's plans, objectives and intentions that are not historical facts.

These statements involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Factors that may cause the Company's actual results to differ materially from those in the forward-looking statements include reductions in customers' research budgets or government funding; the Company's failure to successfully integrate acquired businesses or technologies, including DSI; domestic and global economic conditions; economic, political and other risks associated with international revenues and operations; newly enacted U.S. government tax reform; currency exchange rate fluctuations; economic and political conditions generally and those affecting pharmaceutical and biotechnology industries; the seasonal nature of purchasing in Europe; the Company's failure to expand into foreign countries and international markets; the Company's inability to manage its growth; competition from the Company's competitors; failure or inadequacy of the Company's information technology structure; impact of difficulties implementing our enterprise resource planning systems; information security incidents or cybersecurity breaches; the Company's failure to identify potential acquisition candidates and successfully close such acquisitions with favorable; unanticipated costs relating to acquisitions and known and unknown costs arising in connection with the Company's consolidation of business functions and any restructuring initiatives; failure of any banking institution in which the Company deposits its funds or the institution's failure to provide services; the Company's substantial debt and its ability to meet the financial covenants contained in its credit facility; the Company's failure to raise or generate capital necessary to implement its acquisition and expansion strategy, expand operation and invest in new products; the failure of Biostage, Inc., f/k/a Harvard Apparatus Regenerative Technology, Inc., or Biostage, to indemnify the Company for any liabilities associated with Biostage's business; impact of any impairment of the Company's goodwill or intangible assets; the

Company's ability to retain key personnel; rising commodity and precious metals costs; the Company's ability to protect its intellectual property and operate without infringing on others' intellectual property; exposure to product and other liability claims; plus factors described under the heading "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2017 or otherwise described in our other public filings. The Company's results may also be affected by factors of which the Company is not currently aware. The Company may not update these forward-looking statements, even though its situation may change in the future, unless it has obligations under the federal securities laws to update and disclose material developments related to previously disclosed information.

For investor inquiries, please call (508) 893-8066. Press releases may be found on our web site.

HARVARD BIOSCIENCE, INC.
Condensed Consolidated Balance Sheet Information
(unaudited, in thousands)

	December 31, 2018	December 31, 2017
Assets		
Cash and cash equivalents	\$ 8,173	\$ 5,192
Trade receivables	21,463	13,382
Inventories	25,087	16,848
Property, plant and equipment	5,898	3,743
Goodwill and other intangibles	103,068	47,610
Other assets	4,924	4,215
Assets held for sale	-	18,364
Total assets	<u>\$ 168,613</u>	<u>\$ 109,354</u>
Liabilities and Stockholders' Equity		
Total liabilities	\$ 85,889	\$ 28,454
Stockholders' equity	82,724	80,900
Total liabilities and stockholders' equity	<u>\$ 168,613</u>	<u>\$ 109,354</u>

HARVARD BIOSCIENCE, INC.
Consolidated Statements of Operations
(In thousands, except per share data)
(unaudited)

	Three Months Ended December 31,		Year Ended December 31,	
	2018	2017	2018	2017
Revenues	\$ 33,858	\$ 21,646	\$ 120,774	\$ 77,407
Cost of revenues	15,118	10,626	57,593	38,237
Gross profit	<u>18,740</u>	<u>11,020</u>	<u>63,181</u>	<u>39,170</u>
Sales and marketing expenses	6,467	4,419	24,443	15,082
General and administrative expenses	6,085	4,306	21,382	17,525
Research and development expenses	3,045	1,526	10,988	5,645
Amortization of intangible assets	1,401	395	5,384	1,553
Total operating expenses	<u>16,998</u>	<u>10,646</u>	<u>62,197</u>	<u>39,805</u>
Operating income (loss)	<u>1,742</u>	<u>374</u>	<u>984</u>	<u>(635)</u>
Other expense:				
Foreign exchange	176	(46)	148	(534)
Interest expense, net	(1,532)	(181)	(5,367)	(713)
Other expense, net	(341)	(622)	(3,740)	(739)
Other expense, net	<u>(1,697)</u>	<u>(849)</u>	<u>(8,959)</u>	<u>(1,986)</u>
Income (loss) from continuing operations before income taxes	45	(475)	(7,975)	(2,621)
Income tax benefit	(3,260)	(464)	(3,676)	(605)
Income (loss) from continuing operations	<u>3,305</u>	<u>(11)</u>	<u>(4,299)</u>	<u>(2,016)</u>
Discontinued operations				
Income from discontinued operations	-	303	937	534
Income tax expense (benefit)	443	(707)	(440)	(617)
(Loss) income from discontinued operations, net of tax	<u>(443)</u>	<u>1,010</u>	<u>1,377</u>	<u>1,151</u>
Net income (loss)	<u>\$ 2,862</u>	<u>\$ 999</u>	<u>\$ (2,922)</u>	<u>\$ (865)</u>
Earnings (loss) per share:				
Basic earnings (loss) per common share from continuing operations	\$ 0.09	-	\$ (0.12)	\$ (0.06)
Discontinued operations	(0.01)	0.03	0.04	0.03
Basic earnings (loss) per common share	<u>\$ 0.08</u>	<u>\$ 0.03</u>	<u>\$ (0.08)</u>	<u>\$ (0.02)</u>
Diluted earnings (loss) per common share from continuing operations	\$ 0.09	-	\$ (0.12)	\$ (0.06)
Discontinued operations	(0.01)	0.03	0.04	0.03
Diluted earnings (loss) per common share	<u>\$ 0.08</u>	<u>\$ 0.03</u>	<u>\$ (0.08)</u>	<u>\$ (0.02)</u>
Weighted average common shares:				
Basic	<u>37,295</u>	<u>34,894</u>	<u>36,453</u>	<u>34,753</u>
Diluted	<u>37,918</u>	<u>34,894</u>	<u>36,453</u>	<u>34,753</u>

HARVARD BIOSCIENCE, INC.
Condensed Consolidated Cash Flow Information
(unaudited, in thousands)

	Year Ended December 31,	
	2018	2017
Cash flows from operations:		
Net loss	\$ (2,922)	\$ (865)
Changes in assets and liabilities	(1,675)	(3,811)
Other adjustments to operating cash flows	7,481	5,733
Net cash provided by operating activities	<u>2,884</u>	<u>1,057</u>
Investing activities:		
Additions to property, plant and equipment	(986)	(890)
Acquisition, net of cash acquired	(68,548)	-
Disposition, net of cash sold	15,754	-
Other investing activities	(16)	(27)
Net cash used in investing activities	<u>(53,796)</u>	<u>(917)</u>
Financing activities:		
Proceeds from issuance of debt	70,700	2,750
Repayments of debt	(20,198)	(4,702)
Other financing activities	2,551	160
Net cash provided by (used in) financing activities	<u>53,053</u>	<u>(1,792)</u>
Effect of exchange rate changes on cash	299	1,789
Increase in cash and cash equivalents	<u>2,440</u>	<u>137</u>
Cash and cash equivalents at the beginning of period, including cash included in assets held for sale	5,733	5,596
Cash and cash equivalents at the end of period, including cash included in assets held for sale	<u>\$ 8,173</u>	<u>\$ 5,733</u>

HARVARD BIOSCIENCE, INC.
Reconciliation of GAAP Revenue to Non-GAAP Adjusted Revenue
(unaudited, in thousands)

	Three Months Ended December 31,			Year Ended December 31,		
	2018	2017	Change (%)	2018	2017	Change (%)
GAAP revenue	\$ 33,858	\$ 21,646	56%	\$ 120,774	\$ 77,407	56%
Adjustments:						
Denville revenue reported within discontinued operations	-	5,817	-100%	893	24,475	-96%
Deferred revenue valuation adjustments on acquisition	77	-	100%	284	-	100%
Non-GAAP adjusted revenue	<u>\$ 33,935</u>	<u>\$ 27,463</u>	24%	<u>\$ 121,951</u>	<u>\$ 101,882</u>	20%
Foreign exchange effect on Non-GAAP adjusted revenue			-1%			1%

HARVARD BIOSCIENCE, INC.
Reconciliation of GAAP Gross Profit to Non-GAAP Adjusted Gross Profit
(unaudited, in thousands)

	Three Months Ended December 31,		Year Ended December 31,	
	2018	2017	2018	2017
GAAP gross profit	\$ 18,740	\$ 11,020	\$ 63,181	\$ 39,170
Adjustments:				
Denville Non-GAAP adjusted gross profit	-	2,151	360	8,432
Deferred revenue valuation charges on acquisition	77	-	284	-
Inventory valuation step-up charges on acquisition	-	-	3,816	-
Depreciation of fixed asset step-up on acquisition	200	-	200	-
Severance and restructuring charges	40	-	82	92
Stock-based compensation expense	20	16	65	60
Non-GAAP adjusted gross profit	<u>\$ 19,077</u>	<u>\$ 13,187</u>	<u>\$ 67,988</u>	<u>\$ 47,754</u>
GAAP gross profit percentage	<u>55.3%</u>	<u>50.9%</u>	<u>52.3%</u>	<u>50.6%</u>
Non-GAAP adjusted gross profit percentage	<u>56.2%</u>	<u>48.0%</u>	<u>55.7%</u>	<u>46.9%</u>

HARVARD BIOSCIENCE, INC.
Reconciliation of GAAP Operating Income (Loss) to Non-GAAP Adjusted Operating Income
(unaudited, in thousands)

	Three Months Ended December 31,		Year Ended December 31,	
	2018	2017	2018	2017
GAAP operating income (loss)	\$ 1,742	\$ 374	\$ 984	\$ (635)
Adjustments:				
Amortization of intangible assets	1,401	395	5,384	1,553
Denville Non-GAAP adjusted operating income	-	574	17	1,607
Deferred revenue valuation charges on acquisition	77	-	284	-
Inventory valuation step-up charges on acquisition	-	-	3,816	-
Depreciation of fixed asset step-up on acquisition	619	-	619	-
Forensic investigation and remediation costs	-	-	-	386
Loss on sale of AHN	-	95	-	95
Severance and restructuring charges	127	98	772	426
Stock-based compensation expense	812	852	2,894	3,382
Non-GAAP adjusted operating income	<u>\$ 4,778</u>	<u>\$ 2,388</u>	<u>\$ 14,770</u>	<u>\$ 6,814</u>

HARVARD BIOSCIENCE, INC.
Reconciliation of GAAP Net Income (Loss) to Non-GAAP Adjusted Net Income
(unaudited, in thousands)

	Three Months Ended December 31,		Year Ended December 31,	
	2018	2017	2018	2017
GAAP net income (loss)	\$ 2,862	\$ 999	\$ (2,922)	\$ (865)
Adjustments:				
Amortization of intangible assets	1,401	395	5,384	1,553
Denville Non-GAAP adjustments included in discontinued operations (A)	-	274	(920)	1,072
Deferred revenue valuation charges on acquisition	77	-	284	-
Inventory valuation step-up charges on acquisition	-	-	3,816	-
Depreciation of fixed asset step-up on acquisition	619	-	619	-
Forensic investigation and remediation costs	-	-	-	386
Loss on sale of AHN	-	95	-	95
Severance and restructuring charges	127	98	772	426
Acquisition, disposition and integration costs	247	614	3,294	694
Stock-based compensation expense	812	852	2,894	3,382
Income taxes (B)	(3,380)	(1,652)	(5,861)	(2,519)
Non-GAAP adjusted net income	<u>\$ 2,765</u>	<u>\$ 1,675</u>	<u>\$ 7,360</u>	<u>\$ 4,224</u>

(A) For the three months ended December 31, 2017, the non-GAAP adjustments reported in discontinued operations related to the sale of Denville included \$222 in amortization of intangible assets, \$5 in severance and restructuring charges, and \$47 in stock-based compensation expense. For the year ended December 31, 2018, the non-GAAP adjustments reported in discontinued operations related to the sale of Denville included a \$1,251 gain on sale, \$47 in amortization of intangible assets, \$132 in disposition costs, and \$150 in stock-based compensation expense. For the year ended December 31, 2017, the non-GAAP adjustments reported in discontinued operations related to the sale of Denville included \$889 in amortization of intangible assets, \$65 in severance and restructuring charges, and \$118 in stock-based compensation expense.

(B) Income taxes includes the tax effect of adjusting for the reconciling items using the calculated effective tax rate, including the post-2017 impact of tax reform, in the jurisdictions in which the reconciling items arise.

HARVARD BIOSCIENCE, INC.

Reconciliation of GAAP Diluted Earnings (Loss) Per Common Share to Non-GAAP Adjusted Diluted Earnings Per Common Share
(unaudited)

	Three Months Ended December 31,		Year Ended December 31,	
	2018	2017	2018	2017
GAAP diluted earnings (loss) per common share	\$ 0.08	\$ 0.03	\$ (0.08)	\$ (0.02)
Adjustments:				
Amortization of intangible assets	0.04	0.01	0.15	0.04
Denville Non-GAAP adjustments included in discontinued operations	-	0.01	(0.03)	0.03
Deferred revenue valuation charges on acquisition	-	-	0.01	-
Inventory valuation step-up charges on acquisition	-	-	0.10	-
Depreciation of fixed asset step-up on acquisition	0.02	-	0.02	-
Forensic investigation and remediation costs	-	-	-	0.01
Severance and restructuring charges	-	-	0.02	0.01
Acquisition, disposition and integration costs	-	0.02	0.10	0.02
Stock-based compensation expense	0.02	0.02	0.08	0.10
Income taxes (A)	(0.09)	(0.04)	(0.17)	(0.07)
Non-GAAP adjusted diluted earnings per common share	<u>\$ 0.07</u>	<u>\$ 0.05</u>	<u>\$ 0.20</u>	<u>\$ 0.12</u>

(A) Income taxes includes the tax effect of adjusting for the reconciling items using the calculated effective tax rate for the consolidated entity and any changes to valuation allowances.

HARVARD BIOSCIENCE, INC.

Reconciliation of Guidance for 2019 GAAP Diluted Earnings per Common Share to Non-GAAP Adjusted Diluted Earnings per Common Share
(unaudited)

GAAP diluted earnings per common share (A)	\$0.03 - 0.05
Adjustments:	
Amortization of intangible assets	0.15
Depreciation of fixed asset step-up on acquisition	0.01
Stock-based compensation expense	0.06
Income taxes (B)	(0.04)
Non-GAAP adjusted diluted earnings per common share (A)	<u>\$0.21 - 0.23</u>

(A) This guidance excludes, among other things, the impact of future acquisitions, acquisition costs, restructuring charges, or other one time charges.

(B) Income taxes includes the tax effect of adjusting for the reconciling items using the calculated effective tax rate, including the post-2017 impact of tax reform, in the jurisdictions in which the reconciling items arise and any changes to valuation allowances.
