

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 September 30, 2025

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

(State or other jurisdiction of Incorporation or organization)

04-3306140

(I.R.S. Employer Identification No.)

84 October Hill Road, Holliston, Massachusetts 01746
(Address of Principal Executive Offices, including zip code)

(508) 893-8999

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.01 par value	HBIO	The Nasdaq Capital Market

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 every Interactive Data File required to be submitted 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 such files). Yes No

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

Large accelerated filer

Non-accelerated filer

Accelerated filer

Smaller reporting company

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.

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

As of November 3, 2025, there were 44,579,665 shares of the registrant's common stock issued and outstanding.

HARVARD BIOSCIENCE, INC.

FORM 10-Q

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements.

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

	September 30, 2025	December 31, 2024
Assets		
Current assets:		
Cash and cash equivalents	\$ 6,817	\$ 4,108
Accounts receivable, net	12,109	14,866
Inventories	21,604	23,245
Other current assets	3,275	2,898
Total current assets	43,805	45,117
Property, plant and equipment, net	4,990	5,106
Operating lease right-of-use assets	7,500	6,132
Goodwill	9,525	56,324
Intangible assets, net	8,379	11,132
Other long-term assets	3,793	2,833
Total assets	\$ 77,992	\$ 126,644
Liabilities and Stockholders' Equity		
Current liabilities:		
Debt	\$ 33,967	\$ 36,956
Accounts payable	5,176	4,787
Contract liabilities	2,879	3,806
Other current liabilities	12,374	9,409
Total current liabilities	54,396	54,958
Deferred tax liability	733	710
Operating lease liabilities	7,332	6,381
Other long-term liabilities	1,463	1,255
Total liabilities	63,924	63,304
Commitments and contingencies - Note 13		
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: 44,579,665 shares issued and outstanding at September 30, 2025; 44,074,475 shares issued and outstanding at December 31, 2024	446	441
Additional paid-in-capital	237,922	236,579
Accumulated deficit	(211,863)	(158,010)
Accumulated other comprehensive loss	(12,437)	(15,670)
Total stockholders' equity	14,068	63,340
Total liabilities and stockholders' equity	\$ 77,992	\$ 126,644

See accompanying notes to condensed consolidated financial statements.

HARVARD BIOSCIENCE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited, in thousands, except per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2025	2024	2025	2024
Revenues	\$ 20,591	\$ 21,970	\$ 62,815	\$ 69,579
Cost of revenues	8,570	9,205	27,077	28,824
Gross profit	12,021	12,765	35,738	40,755
Sales and marketing expenses	4,613	5,518	14,123	16,817
General and administrative expenses	4,176	5,041	13,623	16,690
Research and development expenses	2,132	2,567	6,642	8,078
Amortization of acquired intangible assets	855	1,334	3,177	3,998
Goodwill impairment - Note 4	-	-	47,951	-
Other operating expenses - Note 1	48	179	512	1,394
Total operating expenses	11,824	14,639	86,028	46,977
Operating income (loss)	197	(1,874)	(50,290)	(6,222)
Other expense:				
Interest expense	(966)	(856)	(2,559)	(2,356)
Loss on pension settlement	-	(1,243)	-	(1,243)
Loss on equity securities - Note 6	-	-	-	(1,593)
Other expense, net	(365)	(518)	(1,333)	(841)
Total other expense	(1,331)	(2,617)	(3,892)	(6,033)
Loss before income taxes	(1,134)	(4,491)	(54,182)	(12,255)
Income tax expense (benefit)	97	311	(329)	168
Net loss	\$ (1,231)	\$ (4,802)	\$ (53,853)	\$ (12,423)
Loss per share:				
Basic and diluted loss per share	\$ (0.03)	\$ (0.11)	\$ (1.22)	\$ (0.29)
Weighted-average common shares:				
Basic and diluted	44,556	43,614	44,320	43,499

See accompanying notes to condensed consolidated financial statements.

HARVARD BIOSCIENCE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Unaudited, in thousands)

	Three Months Ended		Nine Months Ended September	
	September 30,		30,	
	2025	2024	2025	2024
Net loss	\$ (1,231)	\$ (4,802)	\$ (53,853)	\$ (12,423)
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	(753)	1,596	3,161	685
Defined benefit pension plans	-	470	-	470
Derivative instruments	18	(257)	72	(24)
Other comprehensive (loss) income	(735)	1,809	3,233	1,131
Comprehensive loss	<u>\$ (1,966)</u>	<u>\$ (2,993)</u>	<u>\$ (50,620)</u>	<u>\$ (11,292)</u>

See accompanying notes to condensed consolidated financial statements.

HARVARD BIOSCIENCE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited, in thousands)

	Number of Shares Issued	Common Stock	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance at June 30, 2025	44,531	\$ 445	\$ 237,622	\$ (210,632)	\$ (11,702)	\$ 15,733
Vesting of restricted stock units	94	1	-	-	-	1
Shares withheld for taxes	(45)	-	(24)	-	-	(24)
Stock-based compensation	-	-	324	-	-	324
Net loss	-	-	-	(1,231)	-	(1,231)
Other comprehensive loss	-	-	-	-	(735)	(735)
Balance at September 30, 2025	<u>44,580</u>	<u>\$ 446</u>	<u>\$ 237,922</u>	<u>\$ (211,863)</u>	<u>\$ (12,437)</u>	<u>\$ 14,068</u>

	Number of Shares Issued	Common Stock	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance at June 30, 2024	43,611	\$ 436	\$ 234,905	\$ (153,226)	\$ (14,868)	\$ 67,247
Stock option exercises	6	-	15	-	-	15
Stock-based compensation	-	-	1,053	-	-	1,053
Net loss	-	-	-	(4,802)	-	(4,802)
Other comprehensive income	-	-	-	-	1,809	1,809
Balance at September 30, 2024	<u>43,617</u>	<u>\$ 436</u>	<u>\$ 235,973</u>	<u>\$ (158,028)</u>	<u>\$ (13,059)</u>	<u>\$ 65,322</u>

	Number of Shares Issued	Common Stock	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance at December 31, 2024	44,074	\$ 441	\$ 236,579	\$ (158,010)	\$ (15,670)	\$ 63,340
Stock purchase plan	123	-	46	-	-	46
Vesting of restricted stock units	536	5	-	-	-	5
Shares withheld for taxes	(153)	-	(99)	-	-	(99)
Stock-based compensation	-	-	1,396	-	-	1,396
Net loss	-	-	-	(53,853)	-	(53,853)
Other comprehensive loss	-	-	-	-	3,233	3,233
Balance at September 30, 2025	<u>44,580</u>	<u>\$ 446</u>	<u>\$ 237,922</u>	<u>\$ (211,863)</u>	<u>\$ (12,437)</u>	<u>\$ 14,068</u>

	Number of Shares Issued	Common Stock	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance at December 31, 2023	43,395	\$ 434	\$ 232,435	\$ (145,605)	\$ (14,190)	\$ 73,074
Stock option exercises	14	-	43	-	-	43
Stock purchase plan	72	1	175	-	-	176
Vesting of restricted stock units	150	1	-	-	-	1
Shares withheld for taxes	(14)	-	(59)	-	-	(59)
Stock-based compensation	-	-	3,379	-	-	3,379
Net loss	-	-	-	(12,423)	-	(12,423)
Other comprehensive income	-	-	-	-	1,131	1,131
Balance at September 30, 2024	<u>43,617</u>	<u>436</u>	<u>235,973</u>	<u>(158,028)</u>	<u>(13,059)</u>	<u>65,322</u>

See accompanying notes to condensed consolidated financial statements

HARVARD BIOSCIENCE, INC.
Condensed Consolidated Statements Of Cash Flows
(Unaudited, in thousands)

	Nine Months Ended September 30,	
	2025	2024
Cash flows from operating activities:		
Net loss	\$ (53,853)	\$ (12,423)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation	1,287	1,268
Amortization of intangible assets	3,308	4,129
Goodwill impairment - Note 4	47,951	-
Amortization of deferred financing costs	698	229
Stock-based compensation	1,396	3,379
Deferred income taxes and other	(553)	(361)
Loss on equity securities - Note 6	-	1,593
Loss on pension settlement - Note 8	-	1,243
Changes in operating assets and liabilities:		
Accounts receivable	3,022	3,303
Inventories	2,284	(2,416)
Other assets	421	873
Accounts payable and other liabilities	1,503	(283)
Contract liabilities	(639)	(819)
Net cash provided by (used in) operating activities	<u>6,825</u>	<u>(285)</u>
Cash flows from investing activities:		
Additions to property, plant and equipment	(809)	(2,343)
Capitalized software development costs	(455)	(454)
Proceeds from sale of marketable equity securities	-	1,919
Net cash used in investing activities	<u>(1,264)</u>	<u>(878)</u>
Cash flows from financing activities:		
Borrowing from revolving line of credit	-	8,800
Repayment of revolving line of credit	-	(2,550)
Repayment of term debt	(3,000)	(5,023)
Payment of debt issuance costs	(687)	(161)
Proceeds from exercise of stock options and employee stock purchase plan	46	219
Taxes paid related to net share settlement of equity awards	(99)	(59)
Net cash (used in) provided by financing activities	<u>(3,740)</u>	<u>1,226</u>
Effect of exchange rate changes on cash	888	223
Increase in cash and cash equivalents	2,709	286
Cash and cash equivalents at beginning of period	4,108	4,283
Cash and cash equivalents at end of period	<u>\$ 6,817</u>	<u>\$ 4,569</u>
Supplemental disclosures of cash flow information:		
Cash paid for interest	<u>\$ 2,549</u>	<u>\$ 2,369</u>
Cash paid for income taxes, net of refunds	<u>\$ 46</u>	<u>\$ 315</u>

See accompanying notes to condensed consolidated financial statements

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**1. Basis of Presentation and Summary of Significant Accounting Policies***Basis of Presentation and Summary of Significant Accounting Policies*

The unaudited consolidated financial statements of Harvard Bioscience, Inc. and its wholly-owned subsidiaries (collectively, the “Company”) as of September 30, 2025, and for the three and nine months ended September 30, 2025 and 2024, have been prepared by the Company pursuant to the rules and regulations of the Securities and Exchange Commission (the “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, 2024, 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 condensed 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, 2024.

In the opinion of management, all adjustments, which include normal recurring adjustments necessary to present a fair statement of financial position as of September 30, 2025, results of operations and comprehensive loss for the three and nine months ended September 30, 2025 and 2024, and cash flows for the nine months ended September 30, 2025 and 2024, as applicable, have been made. The results of operations for the three and nine months ended September 30, 2025, are not necessarily indicative of the anticipated operating results for the full year ending December 31, 2025, or any future periods.

The accounting policies underlying the accompanying condensed consolidated financial statements are 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, 2024. There have been no material changes in the Company’s significant accounting policies during the nine months ended September 30, 2025.

Going Concern

The unaudited condensed consolidated financial statements for the three and nine months ended September 30, 2025, have been prepared assuming that the Company will continue as a going concern. A going-concern basis assumes that the Company will continue its operations for the foreseeable future and contemplate the realization of assets and the settlement of liabilities in the normal course of business. As noted below, there is substantial doubt about the Company’s ability to continue as a going concern.

As of September 30, 2025, there was indebtedness of \$34.0 million outstanding under the Company’s term loan and senior revolving credit facility (collectively, the “Credit Agreement”). On August 8, 2025, the Company entered into an amendment (the “August 2025 Amendment”) to the Credit Agreement, pursuant to which the Lenders (defined below) and administrative agent agreed, subject to the terms contained in the August 2025 Amendment, to waive the events of default under the Credit Agreement due to the Company’s failure to achieve certain refinancing milestones (the “Refinancing Milestones”) and its failure to comply with certain financial covenants. In connection with the August 2025 Amendment, the Company has agreed to accomplish steps towards the refinancing (the “Refinancing”) or repayment of the Credit Agreement by no later than December 5, 2025. The Company continues to make progress on these steps, and is working actively to reach a definitive agreement that will accomplish one of these outcomes. The failure to accomplish such steps on the agreed timeline shall constitute an event of default under the Credit Agreement. In such event, in addition to other actions the lenders may require, the amounts outstanding under the Credit Agreement may become immediately due and payable.

The Company continues to explore alternative sources of capital that would allow it to refinance the outstanding indebtedness due under the Credit Agreement, but its ability to access such other sources of capital is uncertain. There is no assurance that such capital will be available, be obtainable on commercially acceptable terms, or provide the Company with sufficient funds to meet its objectives. Based on its anticipated cash flows from operations, unless the Company is able to access other sources of capital or extend the date for repayment under the Credit Agreement, the Company will be unable to pay its debt obligations and fund its operations for at least twelve months from the date of issuance of the condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q. As a result, there is substantial doubt about the Company’s ability to continue as a going concern.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with U.S. GAAP requires the use of management estimates. Such estimates include the determination and establishment of certain accruals and provisions, including those for income taxes, credit losses on receivables, and defined benefit pension obligations. Estimates are also required to assess the value for inventories reported at the lower of cost or net realizable value, stock-based compensation expense, and the recoverability of long-lived and intangible assets, including goodwill. On an ongoing basis, the Company assesses its previous estimates based upon currently available information. Actual results could differ materially from the estimates.

Other Operating Expenses

The components of other operating expenses for the three and nine months ended September 30, 2025 and 2024 were as follows:

(in thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2025	2024	2025	2024
Employee retention tax credit fees (see Note 5)	\$ -	\$ -	\$ 341	\$ 472
Unclaimed property audits expense (see Note 13)	-	-	-	347
Restructuring expenses (see Note 14)	48	179	171	575
Total other operating expenses	\$ 48	\$ 179	\$ 512	\$ 1,394

Recently Issued Accounting Pronouncements Yet to Be Adopted

In December 2023, the Financial Accounting Standards Board (“FASB”) issued ASU No. 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax* (“ASU No. 2023-09”), which enhances disclosures related to the effective tax rate reconciliation, income taxes paid, as well as other disclosures. The new standard impacts footnote disclosures and is effective for the Company’s annual financial statements for the year ending December 31, 2025. The Company is continuing to assess the impact adopting ASU No. 2023-09 will have on the footnote disclosures in its consolidated financial statements.

In November 2024, the FASB issued ASU No. 2024-03, *Income Statement (Subtopic 220-40): Reporting Comprehensive Income—Expense Disaggregation Disclosures* (“ASU No. 2024-03”), which requires enhanced disclosure of income statement expense categories to improve transparency and provide financial statement users with more detailed information about the nature, amount and timing of expenses impacting financial performance. This new guidance is effective for annual reporting periods beginning after December 15, 2026, and interim reporting periods beginning after December 15, 2027, with early adoption permitted. The Company is continuing to assess the impact adopting ASU No. 2024-03 will have on the footnote disclosures in its consolidated financial statements.

In July 2025, the FASB issued ASU 2025-05, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses for Accounts Receivable and Contract Assets* (“ASU 2025-05”), requiring election of a practical expedient when estimating expected credit losses for current accounts receivable and current contract assets. ASU 2025-05 is effective for annual reporting periods beginning after December 15, 2025, and interim reporting periods within those annual reporting periods. Early adoption is permitted in both interim and annual reporting periods. The Company is evaluating the impact that ASU 2025-05 will have on its consolidated financial statements.

2. Earnings (Loss) per Share

Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted average number of shares of common stock outstanding during the periods presented. The computation of diluted earnings (loss) per share is similar to the computation of basic earnings per share, except that the denominator is increased for the assumed exercise of dilutive options and other potentially dilutive securities using the treasury stock method unless the effect is antidilutive. The following table summarizes the calculation of basic and diluted net loss per share of common stock:

(in thousands, except per share data)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2025	2024	2025	2024
Net loss	\$ (1,231)	\$ (4,802)	\$ (53,853)	\$ (12,423)
Weighted average shares outstanding - basic	44,556	43,614	44,320	43,499
Dilutive effect of equity awards	-	-	-	-
Weighted average shares outstanding - diluted	44,556	43,614	44,320	43,499
Basic loss per share	\$ (0.03)	\$ (0.11)	\$ (1.22)	\$ (0.29)
Diluted loss per share	\$ (0.03)	\$ (0.11)	\$ (1.22)	\$ (0.29)
Shares excluded from diluted loss per share due to their anti-dilutive effect	2,666	3,988	2,523	3,730

3. Revenues

The following tables represent a disaggregation of revenues from contracts with customers for the three and nine months ended September 30, 2025 and 2024:

Revenues by type were as follows:

(in thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2025	2024	2025	2024
Instruments, equipment, software and accessories	\$ 18,582	\$ 20,543	\$ 56,625	\$ 64,594
Service, maintenance and warranty contracts	2,009	1,427	6,190	4,985
Total revenues	\$ 20,591	\$ 21,970	\$ 62,815	\$ 69,579

Revenues by timing of recognition were as follows:

(in thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2025	2024	2025	2024
Goods and services transferred at a point in time	\$ 19,541	\$ 21,119	\$ 59,755	\$ 66,845
Goods and services transferred over time	1,050	851	3,060	2,734
Total revenues	\$ 20,591	\$ 21,970	\$ 62,815	\$ 69,579

Revenues by geographic region were as follows:

(in thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2025	2024	2025	2024
Americas				
United States	\$ 9,254	9,706	\$ 28,737	\$ 31,495
Americas - Other	1,185	1,211	2,436	2,635
Europe, Middle East and Africa	6,610	6,620	19,228	19,842
Asia				
China	2,145	2,639	7,330	10,149
Asia - Other	1,397	1,794	5,084	5,458
	\$ 20,591	\$ 21,970	\$ 62,815	\$ 69,579

Contract Liabilities

The following table provides details of contract liabilities as of the periods indicated:

(in thousands)	September 30, 2025	December 31, 2024	Change	Percentage
Deferred revenue				
Service, maintenance and warranty contracts	\$ 1,414	\$ 1,560	\$ (146)	-9%
Installation and training	477	806	(329)	-41%
Customer advances	988	1,440	(452)	-31%
Total short-term contract liabilities	2,879	3,806	(927)	-24%
Long-term service, maintenance and warranty contracts	288	-	288	100%
Total contract liabilities	\$ 3,167	\$ 3,806	\$ (639)	-17%

Changes in the Company's contract liabilities are primarily due to the timing of receipt of payments under service, maintenance and warranty contracts and lower sales volumes. Additionally, customer advances have decreased due to the recognition of amounts under the Company's exchange program, which allows customers to purchase a replacement implantable monitor of the same model at a lower price than a new monitor if the customer returns an implantable monitor to the Company after use, and the returned monitor can be reprocessed and resold. During the three months ended September 30, 2025 and 2024, the Company recognized revenues of \$0.4 million and \$0.4 million from contract liabilities existing at December 31, 2024 and 2023, respectively. During the nine months ended September 30, 2025 and 2024, the Company recognized revenue of \$3.2 million and \$3.0 million from contract liabilities existing at December 31, 2024 and 2023, respectively.

The following table represents the Company's remaining performance obligations from contracts that are recognized over time as of September 30, 2025:

(in thousands)	Remaining Performance Obligations						
	2025 *	2026	2027	2028	2029	Thereafter	Total
Service, maintenance and warranty contracts	\$ 1,194	\$ 450	\$ 38	\$ 15	\$ 5	\$ -	\$ 1,702

* remainder of the year

Provision for Expected Credit Losses on Receivables

Activity in the provision for expected credit losses on receivables was as follows:

(in thousands)	Nine Months Ended September 30,	
	2025	2024
Balance, beginning of period	\$ 215	\$ 160
Provision for expected credit losses	(29)	13
Charge-offs and other	(24)	1
Balance, end of period	\$ 162	\$ 174

Concentrations

No customer accounted for more than 10% of revenues for the three and nine months ended September 30, 2025 and 2024. At September 30, 2025 and December 31, 2024, no customer accounted for more than 10% of net accounts receivable.

Warranties

Activity in the product warranties accrual was as follows:

(in thousands)	Nine Months Ended September 30,	
	2025	2024
Balance, beginning of period	\$ 318	\$ 336
Provision for warranties	131	307
Warranty claims	(145)	(228)
Balance, end of period	<u>\$ 304</u>	<u>\$ 415</u>

4. Goodwill and Long-Lived Assets

The Company determined that a sustained decrease in its stock price that occurred during the three months ended March 31, 2025 indicated that the carrying values of its goodwill and other long-lived assets may not be recoverable. Additional factors that contributed to this conclusion are the Company's recent operating results, liquidity risk and the current macroeconomic conditions impacting the life sciences industry. Based on this determination, the Company performed interim quantitative impairment tests on its goodwill and other long-lived assets as of March 31, 2025 and June 30, 2025, as well as a qualitative analysis as of September 30, 2025.

The recoverability of assets or an asset group to be held and used is measured by a comparison of the carrying amount of an asset or asset group to estimated undiscounted future cash flows expected to be generated by the asset or the asset group. Based on its recoverability assessment, the Company determined that there was no impairment of its other long-lived assets as of March 31, 2025 and June 30, 2025. Based on its qualitative analysis the Company determined that there was no impairment of its other long-lived assets as of September 30, 2025.

For the purpose of its goodwill impairment analysis, the Company has one reporting unit. The Company estimated the fair value of the reporting unit using an income-based valuation approach by means of a discounted cash flow ("DCF") model. Under this model, the fair value of the reporting unit is determined based on the present value of estimated future cash flows, discounted at a risk-adjusted rate of return. The Company used internal forecasts and strategic long-term plans to estimate future cash flows, including projections of revenue and EBITDA, capital expenditure and working capital requirements, terminal growth rates, statutory tax rates and a market-participant discount rate. The goodwill impairment analysis also includes a reconciliation of the aggregate estimated fair value of the reporting unit to the Company's total market capitalization. Based on this quantitative impairment analysis as of March 31, 2025, the Company determined that the carrying value of the reporting unit exceeded its fair value by \$48.0 million. Accordingly, the Company recorded such amount as a goodwill impairment charge for the three months ended March 31, 2025. Based on the quantitative impairment analysis performed as of June 30, 2025 and qualitative analysis performed as of September 30, 2025, an additional impairment charge was not required during the three months ended June 30, 2025, and September 30, 2025.

The inputs and assumptions used in determining the fair value of the reporting unit are subjective and require management's use of significant judgment. Certain future events and circumstances, including further deterioration of the Company's stock price, operating results, and macroeconomic conditions, and a higher cost of capital, among others, could result in changes to these inputs and assumptions. A revision of these inputs and assumptions could cause the fair value of the reporting unit to fall further below its carrying value, resulting in additional impairment charges, which could have a material adverse effect on the Company's results of operations.

The change in the carrying amount of goodwill for the nine months ended September 30, 2025 was as follows:

(in thousands)		
Carrying amount at December 31, 2024	\$	56,324
Goodwill impairment		(47,951)
Effect of change in currency translation		1,152
Carrying amount at September 30, 2025	<u>\$</u>	<u>9,525</u>

Intangible assets, net at September 30, 2025 and December 31, 2024 consisted of the following:

(in thousands)	September 30, 2025			December 31, 2024		
	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Amortizable intangible assets:						
Customer relationships	\$ 16,318	\$ (11,818)	\$ 4,500	\$ 15,603	\$ (10,450)	\$ 5,153
Technology and software development	36,231	(33,229)	3,002	35,397	(30,556)	4,841
Trade names and patents	7,708	(7,049)	659	7,452	(6,509)	943
Total amortizable intangible assets	\$ 60,257	\$ (52,096)	\$ 8,161	\$ 58,452	\$ (47,515)	\$ 10,937
Indefinite-lived intangible assets:			218			195
Total intangible assets			\$ 8,379			\$ 11,132

Intangible asset amortization expense for the three and nine months ended September 30, 2025 and 2024 was as follows:

(in thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2025	2024	2025	2024
Cost of revenues	\$ 44	\$ 44	\$ 131	\$ 131
Operating expense	855	1,334	3,177	3,998
Total amortization of intangible assets	\$ 899	\$ 1,378	\$ 3,308	\$ 4,129

As of September 30, 2025, estimated future amortization expense of amortizable intangible assets is as follows:

(in thousands)	
2025 (remainder of year)	\$ 894
2026	2,904
2027	1,632
2028	1,385
2029	949
Thereafter	397
Total	\$ 8,161

5. Balance Sheet Information

The following tables provide details of selected balance sheet items as of the periods indicated:

<i>Inventories:</i> (in thousands)	September 30,	December 31,
	2025	2024
Finished goods	\$ 5,863	\$ 5,222
Work in process	2,256	2,754
Raw materials	13,485	15,269
Total	\$ 21,604	\$ 23,245

Other Current Liabilities:

(in thousands)	September 30, 2025	December 31, 2024
Compensation	\$ 1,871	\$ 1,714
Customer credits	1,225	1,286
Current portion of operating lease liabilities	1,486	1,158
Employee retention tax credit funds	5,420	3,154
Professional fees	465	545
Warranty costs	304	318
Other	1,603	1,234
Total	\$ 12,374	\$ 9,409

The Coronavirus Aid, Relief, and Economic Security Act of 2020 (the “CARES Act”) provided an employee retention tax credit (“ERTC”) that was a refundable tax credit against certain employer taxes. The Company elected to account for the credit as a government grant. As there is no authoritative guidance under U.S. GAAP on accounting for grants to for-profit business entities from government entities, the Company accounts for government assistance by applying the principles of International Accounting Standards Topic 20, *Accounting for Government Grants and Disclosure of Government Assistance* (“IAS 20”). Under IAS 20, government grants are recognized when there is reasonable assurance that the grant will be received and that all conditions related to the grant will be met.

The Company received ERTC refunds of \$2.2 million and \$3.2 million during the nine months ended September 30, 2025 and 2024, respectively. The Company has included the refunds received in other current liabilities in the consolidated balance sheets as of September 30, 2025 and 2024, subject to a determination that the refunds are recognizable.

The Company engaged a professional services firm under a commission fee arrangement to assist with determining the Company’s eligibility to claim the ERTC refunds and accumulating the necessary support that was used as a basis in the filing. The Company paid fees of \$0.3 million and \$0.5 million during the nine months September 30, 2025 and 2024, respectively, for these services, which are included in other operating expenses in the consolidated statement of operations.

6. Marketable Equity Securities

In April 2023, the Company received shares of common stock of Harvard Apparatus Regenerative Technology, Inc. (“HRGN”, formerly known as Biostage, Inc.) in connection with settlement of indemnification obligations related to litigation which was resolved during the year ended December 31, 2022.

During the nine months ended September 30, 2024, the Company sold all of its remaining HRGN shares. The Company received cash proceeds of \$1.4 million and \$1.9 million from HRGN shares sold during the three and nine months ended September 30, 2024, respectively. The Company recorded losses on equity securities of \$0.3 million and \$1.6 million during the three and nine months ended September 30, 2024, respectively. The Company determined the fair value of its HRGN common stock based on the closing price as quoted on the OTCQB Marketplace at the reporting date. The Company did not hold any shares of HRGN stock during the nine months ended September 30, 2025.

7. Leases

The Company has noncancelable operating leases for offices, manufacturing facilities, warehouse space, automobiles and equipment expiring at various dates through 2030.

The components of lease expense for the three and nine months ended September 30, 2025 and 2024, were as follows:

(in thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2025	2024	2025	2024
Operating lease cost	\$ 563	\$ 520	\$ 1,610	\$ 1,539
Short-term lease cost	45	46	133	148
Sublease income	-	(17)	-	(68)
Total lease cost	\$ 608	\$ 549	\$ 1,743	\$ 1,619

Supplemental cash flow information related to the Company's operating leases is as follows:

(in thousands)	Nine Months Ended September 30,	
	2025	2024
Cash paid for amounts included in the measurement of lease liabilities	\$ 1,776	\$ 1,745
Right-of-use assets obtained in exchange for lease obligations	2,246	2,945

Supplemental balance sheet information related to the Company's operating leases is as follows:

(in thousands)	September 30,	December 31,
	2025	2024
Operating lease right-of-use assets	\$ 7,500	\$ 6,132
Current portion, operating lease liabilities	\$ 1,486	\$ 1,158
Operating lease liabilities, long-term	7,332	6,381
Total operating lease liabilities	\$ 8,818	\$ 7,539
Weighted average remaining lease term (years)	4.4	5.2
Weighted average discount rate	7.9%	8.9%

Future minimum lease payments for operating leases, with initial terms in excess of one year at September 30, 2025, are as follows:

Year Ending December 31,	
(in thousands)	
2025 (remainder of the year)	\$ 522
2026	2,423
2027	2,394
2028	2,310
2029	2,071
Thereafter	870
Total lease payments	10,590
Less imputed interest	(1,772)
Total operating lease liabilities	\$ 8,818

8. Debt

The Company's debt, which was included within current liabilities as of September 30, 2025 and December 31, 2024, was as follows:

(in thousands)	September 30,	December 31,
	2025	2024
Term loan	\$ 21,700	\$ 24,700
Revolving line	12,650	12,650
Less: unamortized deferred financing costs	(383)	(394)
Total debt	\$ 33,967	\$ 36,956

The Company maintains a Credit Agreement with Citizens Bank, N.A., Wells Fargo Bank, N.A., and First-Citizens Bank & Trust Company (the “Lenders”). The Credit Agreement originally provided for a term loan of \$40.0 million and a \$25.0 million revolving credit facility (including a \$10.0 million sub-facility for the issuance of letters of credit and a \$10.0 million swingline loan sub facility) (collectively, the “Credit Facility”). The Company’s obligations under the Credit Agreement are secured by substantially all of its assets, including all or a portion of the equity interests in certain of the Company’s domestic and foreign subsidiaries. The Company’s obligations under the Credit Agreement are guaranteed by certain of the Company’s direct, domestic wholly owned subsidiaries; none of the Company’s direct or indirect foreign subsidiaries has guaranteed the Company’s obligations under the Credit Agreement. Issuance costs of \$2.0 million are amortized over the contractual term to maturity date on a straight-line basis, which approximates the effective interest method. Total revolver borrowing capacity is limited by the consolidated net leverage ratio as defined under the amended Credit Agreement. As of the date of these financial statements, the Company was unable to make additional borrowings under its revolving credit facility due to net leverage ratio requirements set forth in the August 6, 2024 amendment to the Credit Agreement and the terms of the March 10, 2025 amendment to the Credit Agreement (the “March 2025 Amendment”), as described below.

Borrowings under the Credit Facility, at the option of the Company, bear interest at either (i) a rate per annum based on the Secured Overnight Financing Rate (“SOFR”) for an interest period of one, two, three or six months, plus an applicable interest rate margin determined as provided in the Credit Agreement (a “SOFR Loan”), subject to a floor of 0.50%, or (ii) an alternative base rate plus an applicable interest rate margin, each as determined as provided in the Credit Agreement. The alternative base rate is based on the Citizens Bank prime rate or the federal funds effective rate of the Federal Reserve Bank of New York and is subject to a floor of 1.0%. Pursuant to the March 2025 Amendment, the applicable interest rate margin was increased such that interest rate was equal to a rate per annum based on the SOFR plus 400 bps effective as of March 10, 2025. There are no prepayment penalties in the event the Company elects to prepay and terminate the Credit Facility prior to its scheduled maturity date, subject to SOFR Loan breakage and redeployment costs in certain circumstances.

The effective interest rate on the Company’s borrowings for the three months ended September 30, 2025 and 2024, was 11.0% and 8.7%, respectively, and for the nine months ended September 30, 2025 and 2024 was 9.4% and 8.1%, respectively. The weighted average interest rate as of September 30, 2025, net of the effect of the Company’s interest rate swap agreement, was 10.0%. The carrying value of the debt approximates fair value because the interest rate under the obligation approximates market rates of interest available to the Company for similar instruments.

The term loan required quarterly installment payments of \$1.0 million with a balloon payment at maturity on December 22, 2025. Pursuant to the March 2025 Amendment, amortization payments were revised so that a proportionate payment must be made on a monthly rather than a quarterly basis.

The Credit Agreement includes various customary financial covenants and other affirmative and negative covenants binding on the Company. The negative covenants limit the ability of the Company, among other things, to incur debt, permit liens, make investments, sell assets, or pay dividends on its capital stock. The financial covenants include a maximum consolidated net leverage ratio and a minimum consolidated fixed charge coverage ratio. The Credit Agreement also includes customary events of default.

The March 2025 Amendment provided, among other things, that the Lenders’ commitment under the revolving credit facility would be capped at \$12.65 million, which was the amount outstanding thereunder as of the date thereof, and thus we are unable to make additional borrowings under our revolving credit facility. The March 2025 Amendment also established certain Refinancing Milestones in connection with the Refinancing, including, by June 30, 2025, the closing of the Refinancing. The Lenders also agreed not to assert any breaches of the financial covenants included in the Credit Agreement for the first quarter of 2025 provided that the Company continued to comply with its payment obligations, achieved the Refinancing Milestones, maintained minimum liquidity (defined as the sum of (a) unrestricted cash and cash equivalents and (b) the amount by which the aggregate amount committed under the Company’s revolving credit facility exceeds the total amount drawn under the credit facility) of \$3.5 million and provided the administrative agent with certain financial reports.

As of June 30, 2025, the Company was not in compliance with the Refinancing Milestones and quarterly financial covenants included in the March 2025 Amendment. On August 8, 2025, the Company entered into the August 2025 Amendment, pursuant to which the Lenders and administrative agent agreed, subject to the terms contained in the August 2025 Amendment, to waive the events of default due to the Company’s failure to achieve certain Refinancing Milestones and its failure to comply with the consolidated net leverage ratio covenant and the consolidated fixed charge coverage ratio covenant as of the June 30, 2025 test date. Pursuant to the terms of the August 2025 Amendment, the Lenders also agreed not to test the net leverage ratio financial covenant and the consolidated fixed charge coverage ratio financial covenant for the fiscal quarter ended September 30, 2025, and to reduce the Company’s covenant to maintain minimum liquidity (defined as the sum of (a) unrestricted cash and (b) the amount by which the aggregate amount committed under the Company’s revolving credit facility exceeds the total amount drawn under the credit facility) of \$3.0 million.

The August 2025 Amendment also added, as a mandatory prepayment event, the receipt of cash proceeds upon a Refinancing or upon the sale of the equity interests or all or substantially all of the assets of the Company. In addition, pursuant to the terms of the August 2025 Amendment, the applicable interest rate margin was increased such that the interest rate is equal to a rate per annum based on the SOFR plus 700 bps. In connection with the August 2025 Amendment, the Company has agreed to accomplish steps towards the Refinancing or repayment of the Credit Agreement by no later than December 5, 2025. The Company continues to make progress on these steps, and is working actively to reach a definitive agreement that will accomplish one of these outcomes. The failure to accomplish such steps on the agreed timeline shall constitute an event of default under the Credit Agreement.

The Company agreed to pay fees of \$0.4 million, or 1.00% of the outstanding debt, to the Lenders in connection with the August 2025 Amendment, of which 25% was paid upon the signing of the August 2025 Amendment and the remaining 75% will be payable upon a Refinancing or repayment of the Credit Agreement or upon the occurrence of an event of default.

9. Derivatives

In February 2023, the Company entered into an interest rate swap contract to improve the predictability of cash flows from interest payments related to its variable, SOFR-based debt. The swap contract had a notional amount of \$17.6 million as of September 30, 2025 and matures on December 22, 2025. This swap contract effectively converts the SOFR-based variable portion of the interest payable under the Credit Agreement into fixed-rate debt at an annual rate of 4.75%. The swap contract does not impact the additional interest related to the applicable interest rate margin as discussed above in Note 8, Debt.

The swap contract is considered an effective cash flow hedge, and as a result, net gains or losses are reported as a component of other comprehensive income (“OCI”) in the consolidated financial statements and are reclassified when the underlying hedged interest impacts earnings. An assessment is performed quarterly to evaluate the ongoing hedge effectiveness.

The following table presents the notional amount and fair value of the Company’s derivative instruments as of September 30, 2025 and December 31, 2024:

(in thousands)		September 30, 2025		December 31, 2024	
		Notional Amount	Fair Value (a)	Notional Amount	Fair Value (a)
Derivatives Instruments	Balance Sheet Classification				
Interest rate swap	Other current liabilities	\$ 17,550	\$ (27)	\$ 21,658	\$ (99)

(a) See Note 10 for the fair value measurements related to these financial instruments.

The effect of the cash flow hedge on other comprehensive income (loss) and earnings for the periods presented was as follows:

Derivatives Qualifying as Hedges, net of tax (in thousands)	Three Months Ended September 30,		Nine Months Ended September 30, 2025	
	2025	2024	2025	2024
Gain (loss) recognized in OCI on derivatives (effective portion)	\$ 18	\$ (257)	\$ 72	\$ (24)
Amounts reclassified from AOCI to interest expense	(16)	42	(50)	133

10. Fair Value Measurements

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

Assets (Liabilities) (in thousands)	Fair Value as of September 30, 2025			
	Level 1	Level 2	Level 3	Total
Interest rate swap agreement	\$ -	\$ (27)	\$ -	\$ (27)

Assets (Liabilities) (in thousands)	Fair Value as of December 31, 2024			
	Level 1	Level 2	Level 3	Total
Interest rate swap agreement	\$ -	\$ (99)	\$ -	\$ (99)

The Company uses the market approach technique to value its financial liabilities. The fair value of the Company's interest rate swap agreement was based on SOFR yield curves at the reporting date and is included within other current liabilities on the consolidated balance sheets at both September 30, 2025 and December 31, 2024.

11. Stock-Based Compensation

Stock-based compensation expense for the three and nine months ended September 30, 2025 and 2024 was allocated as follows:

(in thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2025	2024	2025	2024
Cost of revenues	\$ 18	\$ (30)	\$ 79	\$ 88
Sales and marketing expenses	122	164	346	453
General and administrative expenses	104	795	703	2,493
Research and development expenses	80	124	268	345
Total stock-based compensation	\$ 324	\$ 1,053	\$ 1,396	\$ 3,379

As of September 30, 2025, the total compensation costs related to unvested awards not yet recognized was \$1.8 million and the weighted average period over which such costs are expected to be recognized is approximately 1.7 years. The Company did not capitalize any stock-based compensation.

Restricted stock unit ("RSU") activity for the nine months ended September 30, 2025 was as follows:

	Time-Based		Market-Based		Performance-Based	
	Restricted Stock Units	Grant Date Fair Value	Restricted Stock Units	Grant Date Fair Value	Restricted Stock Units	Grant Date Fair Value
Balance at December 31, 2024	1,378,995	\$ 3.51	558,958	\$ 2.61	375,895	\$ 4.19
Granted	1,237,821	0.45	500,000	0.67	-	-
Vested	(536,145)	3.57	-	-	-	-
Forfeited	(369,499)	3.56	(192,473)	2.61	(211,815)	4.19
Balance at September 30, 2025	1,711,172	\$ 1.27	866,485	\$ 1.49	164,080	\$ 4.19

The aggregate fair value of RSUs that vested during the nine months ended September 30, 2025, and 2024 was \$0.3 million and \$0.5 million, respectively. Unvested shares related to market-based and performance-based vesting conditions are reflected at 100% of their target vesting amount in the table above. Actual vesting could range from zero to 150% of their target amounts.

Performance-based RSU awards are contingent on the achievement of certain performance metrics. Compensation cost associated with performance-based RSUs are recognized based on the estimated number of shares that the Company ultimately expects will be earned. If the estimated number of shares to be earned is revised in the future, then stock-based compensation expense will be adjusted accordingly.

The weighted average estimated fair value of the market condition restricted stock awards that were granted during the nine months ended September 30, 2025 was \$0.67 per unit. The estimate of the fair value was determined using a Monte-Carlo valuation simulation, which included the following assumptions:

Volatility	89.8%
Risk-free interest rate	3.7%
Correlation coefficient	36.5%
Dividend yield	-%

Stock option activity for the nine months ended September 30, 2025 was as follows:

	Number of Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term	Aggregate Intrinsic Value (in thousands)
Outstanding and exercisable at December 31, 2024	827,458	\$ 3.24		
Cancelled/Forfeited	(660,755)	3.20		
Outstanding and exercisable at September 30, 2025	<u>166,703</u>	<u>\$ 3.39</u>	<u>2.4</u>	<u>\$ -</u>

There is no aggregate intrinsic value at September 30, 2025 because the Company's closing stock price of \$0.44 is below the exercise price of the outstanding options.

12. Income Tax

The determination of the annual effective tax rate is based upon a number of significant estimates and judgments, including the estimated annual pretax income in each tax jurisdiction in which the Company operates and the development of tax planning strategies during the year. In addition, as a global commercial enterprise, the Company's tax expense can be impacted by changes in tax rates or laws, the finalization of tax audits and reviews and other factors that cannot be predicted with certainty. As such, there can be significant volatility in interim tax provisions.

Income tax expense (benefit) was \$0.1 million and \$0.3 million for the three months ended September 30, 2025 and 2024, respectively, and was (\$0.3) million and \$0.2 million for the nine months ended September 30, 2025 and 2024, respectively. The Company's effective tax rate of (8.6)% and 0.6% for the three and nine months ended September 30, 2025, respectively, were lower than the U.S. statutory rate due to the tax effect of goodwill impairment. The Company's effective tax rates of (6.9)% and (1.4)% for the three and nine months ended September 30, 2024, respectively, were different than the U.S. statutory rate primarily due to the inclusion of non-deductible executive compensation. The effective tax rate for both periods was also impacted by changes in valuation allowances associated with the Company's assessment of the likelihood of the recoverability of deferred tax assets.

On July 4, 2025, subsequent to the end of the second quarter of fiscal 2025, the One Big Beautiful Bill Act (the "Act") was signed into law. The Act includes several significant tax-related provisions, including the permanent extension of certain elements of the Tax Cuts and Jobs Act. The legislation features staggered effective dates beginning in 2025 and continuing through 2027. The Company has incorporated the provisions from the Act into the Q3 2025 income tax provision and has concluded that these changes did not have a significant impact on its consolidated financial statements and related disclosures.

13. Commitments and Contingent Liabilities

The Company is occasionally subject to claims and lawsuits which typically arise in the normal course of business. While the outcome of these claims cannot be predicted with certainty, management does not believe that the outcome of any of these legal matters will have a material adverse effect on the Company's business, results of operations, financial condition, or cash flows.

The Company is subject to unclaimed property laws in the ordinary course of its business. State escheat laws generally require entities to report and remit abandoned and unclaimed property to the state. Failure to timely report and remit the property can result in assessments that could include interest and penalties, in addition to the payment of the escheat liability itself. The Company recorded an expense of \$0.3 million during the nine months ended September 30, 2024 related to unclaimed property audits which have been included in other operating expenses in the consolidated statement of operations. The unclaimed property audit was completed during the second quarter of fiscal 2024.

14. Restructuring Costs

On an ongoing basis, the Company reviews the global economy, the life sciences industry, and the markets in which it competes to identify operational efficiencies and align its cost base and infrastructure with customer needs and its strategic plans. In order to achieve these goals, the Company undertakes activities from time to time to optimize its business.

During the nine months ended September 30, 2025, the Company initiated additional restructurings for which it incurred \$0.2 million of costs, primarily consisting of severance incurred in connection with headcount reductions in North America and Europe. The Company expects the restructuring to be completed during the year ending December 31, 2025.

During the nine months ended September 30, 2024, the Company completed a restructuring and incurred expenses of \$0.6 million, primarily consisting of severance incurred in connection with headcount reductions in North America and Europe. Severance and other costs have been included as a component of other operating expenses (see Note 1). The changes in the accrued liability for restructuring and other charges for the nine months ended September 30, 2025 were as follows:

(in thousands)	Severance
Balance at December 31, 2024	\$ 82
Restructuring costs	171
Cash payments	(178)
Effect of change in currency translation	4
Balance at September 30, 2025	<u>\$ 79</u>

15. Segment Information

The Company conducts business as a single operating segment, which is based upon the Company's organizational and management structure, as well as information used by the chief operating decision maker ("CODM") to allocate resources and other factors. The key measure of segment profitability that the CODM uses to allocate resources and assess performance is consolidated net income (loss), as reported on the consolidated statements of operations. The CODM utilizes consolidated net loss by comparing actual results against budgeted amounts on a quarterly basis. The following table presents the significant revenue and expense categories of the Company's single operating segment:

	Three Months Ended September		Nine Months Ended September	
	30,		30,	
	2025	2024	2025	2024
Revenues	\$ 20,591	\$ 21,970	\$ 62,815	\$ 69,579
Less:				
Cost of revenues (1)	8,552	9,235	26,998	28,736
Sales and marketing expenses (1)	4,491	5,354	13,777	16,364
General and administrative expenses (1)	4,072	4,246	12,920	14,197
Research and development expenses (1)	2,052	2,443	6,374	7,733
Amortization of acquired intangibles	855	1,334	3,177	3,998
Interest expense	966	856	2,559	2,356
Loss on pension settlement	-	1,243	-	1,243
Income tax expense (benefit)	97	311	(329)	168
Goodwill impairment	-	-	47,951	-
Other segment expenses (2)	737	1,750	3,241	7,207
Net loss	<u>\$ (1,231)</u>	<u>\$ (4,802)</u>	<u>\$ (53,853)</u>	<u>\$ (12,423)</u>

(1) Excludes stock-based compensation expense

(2) Includes stock-based compensation, other operating expenses, loss on equity securities and other expenses

Asset information provided to the CODM is consistent with that reported on the consolidated balance sheets with particular emphasis on the Company's available liquidity, including its cash, accounts receivable, and inventory, reduced by current liabilities. Information relating to the Company's products and services and geographical distribution of revenues is disclosed in Note 3.

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," "is likely," "projects," "forecasts," "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. We discuss many of these risks in detail in our Annual Report on Form 10-K for the year ended December 31, 2024 and our other filings with the SEC. You should carefully review all of these factors, as well as other risks described in our public filings, and you should be aware that there may be other factors, including factors of which we are not currently aware, that could cause these differences. Also, these forward-looking statements represent our estimates and assumptions only as of the date of this report. We may not update these forward-looking statements, even though our situation may change in the future, unless we have obligations under the federal securities laws to update and disclose material developments related to previously disclosed information. Harvard Bioscience, Inc. is referred to herein as "we," "our," "us," and "the Company."

Overview

Harvard Bioscience, Inc., a Delaware corporation, is a leading developer, manufacturer and seller of technologies, products and services that enable fundamental advances in life science applications, including research, drug and therapy discovery, bioproduction and preclinical testing for pharmaceutical and therapy development. Our products and services are sold globally to customers ranging from renowned academic institutions and government laboratories to the world's leading pharmaceutical, biotechnology and contract research organizations ("CROs"). With operations in the United States, Europe and China, we sell through a combination of direct and distribution channels to customers around the world.

Trends and Developments

Our business is affected by global and regional economic trends and uncertainties. Our revenue has been and may continue to be affected by our customers forgoing or delaying purchases of our products and services as a result of ongoing uncertainty with respect to the level and timing of funding from the U.S. National Institutes of Health (the "NIH") or similar government sources. Our business has also been affected by the imposition of increased tariffs on shipments of products between the United States and other countries, and in particular between the United States and China. Our revenue has been and may continue to be affected by greater restrictions and economic disincentives on international trade, including these tariffs. Products and services that we obtain from overseas sources have been and may continue to be affected by these tariffs, resulting in increased costs to our business.

If these trends are prolonged or are more severe than anticipated, our business, results of operations, and cash flow may be materially impacted.

As of June 30, 2025, the Company was not in compliance with certain refinancing milestones (the "Refinancing Milestones") and quarterly financial covenants contained in the Company's term loan and senior revolving credit facility, dated as of December 22, 2020 (collectively, as amended, the "Credit Agreement"). On August 8, 2025, the Company entered into an amendment to the Credit Agreement (the "August 2025 Amendment"), pursuant to which the lenders party to the Credit Agreement (the "Lenders") and the administrative agent agreed to waive the events of default due to the Company's failure to achieve the Refinancing Milestones and its failure to comply with the consolidated net leverage ratio covenant and the consolidated fixed charge coverage ratio covenant as of the June 30, 2025 test date. See "Part I, Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources" of this report for additional information.

Selected Results of Operations*Three months ended September 30, 2025, compared to three months ended September 30, 2024*

(dollars in thousands)	Three Months Ended September 30,			
	2025	% of revenue	2024	% of revenue
Revenues	\$ 20,591		\$ 21,970	
Gross profit	12,021	58.4%	12,765	58.1%
Sales and marketing expenses	4,613	22.4%	5,518	25.1%
General and administrative expenses	4,176	20.3%	5,041	22.9%
Research and development expenses	2,132	10.4%	2,567	11.7%
Amortization of intangible assets	855	4.2%	1,334	6.1%
Other operating expenses	48	0.2%	179	0.8%
Interest expense	966	4.7%	856	3.9%
Loss on pension settlement	-	0.0%	1,243	5.7%
Income tax expense	97	0.5%	311	1.4%

Revenues

Revenues decreased \$1.4 million, or 6.3%, to \$20.6 million for the three months ended September 30, 2025, compared to \$22.0 million for the three months ended September 30, 2024. The decrease in revenues was primarily due to the continued softening of worldwide demand primarily from academic research institutions and CROs and the impact of reciprocal tariffs.

Gross profit

Gross profit decreased \$0.8 million, or 5.8%, to \$12.0 million for the three months ended September 30, 2025, compared with \$12.8 million for the three months ended September 30, 2024, primarily due to the decrease in revenues as well as the associated lower absorption of fixed manufacturing costs. Gross margin was 58.4% for the three months ended September 30, 2025, compared to 58.1% for the three months ending September 30, 2024. The increase in gross margin was primarily due to favorable product mix.

Sales and marketing expenses

Sales and marketing expenses decreased \$0.9 million, or 16.4%, to \$4.6 million for the three months ended September 30, 2025, compared with \$5.5 million for the three months ended September 30, 2024. This decrease was primarily due to reduced compensation, travel and entertainment, and trade show expenses.

General and administrative expenses

General and administrative expenses decreased \$0.8 million, or 17.2%, to \$4.2 million for the three months ended September 30, 2025, compared with \$5.0 million for the three months ended September 30, 2024. The decrease was primarily due to reduced compensation costs.

Research and development expenses

Research and development expenses decreased \$0.5 million, or 16.9%, to \$2.1 million for the three months ended September 30, 2025, compared with \$2.6 million for the three months ended September 30, 2024. This decrease was primarily due to reduced compensation costs.

Amortization of intangible assets

Amortization of intangible assets included in operating expenses was \$0.9 million for the three months ended September 30, 2025, compared with \$1.3 million for the three months ended September 30, 2024.

Other operating expenses

Other operating expenses for the three months ended September 30, 2024 were \$0.2, which consisted of restructuring costs in connection with headcount reductions in Europe and North America.

Interest expense

Interest expense was \$1.0 million for the three months ended September 30, 2025, compared with \$0.9 million for the three months ended September 30, 2024.

Loss on pension settlement

During the three months ended September 30, 2024, we settled our obligations under one of our defined benefit plans by using plan assets to purchase non-participating annuity contracts. The settlement resulted in the recognition of a non-cash charge of \$1.2 million, which has been presented as a component of other income (expense), net. This amount includes the immediate recognition of the portion of the accumulated other comprehensive income (“AOCI”) balance related to this plan.

Income tax expense (benefit)

The income tax expense (benefit) was \$0.1 million and \$0.3 million for the three months ended September 30, 2025 and 2024, respectively. The effective tax rates for the three months ended September 30, 2025 and 2024 were (8.6)% and (6.9)%, respectively. The higher effective tax rate during the three months ended September 30, 2025, compared to the three months ended September 30, 2024, was primarily due to the change in the mix of income by jurisdiction. The Company’s effective tax rate for the three months ended September 30, 2025, was different than the U.S. statutory rate primarily due to a Global Intangible Low-Tax Income (“GILTI”) inclusion to taxable income, and changes in valuation allowances associated with the Company’s assessment of the likelihood of the recoverability of deferred tax assets.

Nine months ended September 30, 2025, compared to nine months ended September 30, 2024

(dollars in thousands)	Nine Months Ended September 30,			
	2025	% of revenue	2024	% of revenue
Revenues	\$ 62,815		\$ 69,579	
Gross profit	35,738	56.9%	40,755	58.6%
Sales and marketing expenses	14,123	22.5%	16,817	24.2%
General and administrative expenses	13,623	21.7%	16,690	24.0%
Research and development expenses	6,642	10.6%	8,078	11.6%
Amortization of intangible assets	3,177	5.1%	3,998	5.7%
Goodwill impairment	47,951	76.3%	-	0.0%
Other operating expenses	512	0.8%	1,394	2.0%
Interest expense	2,559	4.1%	2,356	3.4%
Loss on pension settlement	-	0.0%	1,243	1.8%
Loss on equity securities	-	0.0%	1,593	2.3%
Income tax (benefit) expense	(329)	-0.5%	168	0.2%

Revenues

Revenues decreased \$6.8 million, or 9.7%, to \$62.8 million for the nine months ended September 30, 2025, compared to \$69.6 million for the nine months ended September 30, 2024. The decrease in revenues was primarily due to the continued softening of worldwide demand primarily from academic research institutions and CROs and the impact of reciprocal tariffs.

Gross profit

Gross profit decreased \$5.1 million, or 12.3%, to \$35.7 million for the nine months ended September 30, 2025, compared with \$40.8 million for the nine months ended September 30, 2024, primarily due to the decrease in revenues as well as the associated lower absorption of fixed manufacturing costs. Gross margin decreased to 56.9% for the nine months ended September 30, 2025, compared with 58.6% for the nine months ended September 30, 2024. The decrease in gross margin was primarily the result of under-absorption of fixed manufacturing overhead costs due to the decrease in revenues, increases in purchase price variance as well as a higher mix of lower margin products.

Sales and marketing expenses

Sales and marketing expenses decreased \$2.7 million, or 16.0%, to \$14.1 million for the nine months ended September 30, 2025, compared with \$16.8 million for the nine months ended September 30, 2024. This decrease was primarily due to reduced compensation, travel and entertainment, and trade show expenses.

General and administrative expenses

General and administrative expenses decreased \$3.1 million, or 18.4%, to \$13.6 million for the nine months ended September 30, 2025, compared with \$16.7 million for the nine months ended September 30, 2024. The decrease was primarily due to reduced compensation costs, partially offset by an increase of \$0.2 million in audit and legal fees.

Research and development expenses

Research and development expenses decreased \$1.5 million, or 17.8%, to \$6.6 million for the nine months ended September 30, 2025, compared with \$8.1 million for the nine months ended September 30, 2024. This decrease was primarily due to reduced compensation costs.

Amortization of intangible assets

Amortization of intangible assets included in operating expenses decreased \$0.8 million, or 20.5%, to \$3.2 million for the nine months ended September 30, 2025, compared with \$4.0 million for the nine months ended September 30, 2024.

Goodwill impairment

Goodwill impairment expenses increase by \$48.0 million for the nine months ended September 30, 2025. We identified a triggering event, including the sustained decrease in our stock price, our recent operating results, liquidity risk and the current macroeconomic conditions impacting the life sciences industry, requiring an interim impairment test. We recorded a non-cash goodwill impairment charge of \$48.0 million in connection with the interim impairment test.

Other operating expenses

Other operating expenses decreased by \$0.9 million, or 63.3% to \$0.5 million for the nine months ended September 30, 2025, compared to \$1.4 million for the nine months ended September 30, 2024. Other operating expenses for the nine months ended September 30, 2025, included a fee of \$0.3 million in connection with the receipt of employee retention credits and restructuring costs of \$0.2 million in connection with headcount reductions in North America and Europe. Other operating expenses for the nine months ended September 30, 2024, included a fee of \$0.5 million in connection with the receipt of employee retention tax credits, restructuring costs of \$0.6 million in connection with headcount reductions, and \$0.3 million related to settlement of an unclaimed property audit.

Interest expense

Interest expense increased \$0.2 million, or 8.6%, to \$2.6 million for the nine months ended September 30, 2025, compared with \$2.4 million for the nine months ended September 30, 2024. The increase was primarily due to a higher effective interest rate during the period compared to the prior year.

Loss on equity securities

During the nine months ended September 30, 2024, we sold all of our remaining Harvard Apparatus Regenerative Technology Inc. (“HRGN”) stock for \$1.9 million and recorded a loss on equity securities of \$1.6 million. We did not hold any shares of HRGN stock during the nine months ended September 30, 2025.

Income tax benefit

The income tax expense (benefit) was \$(0.3) million and \$0.2 million for the nine months ended September 30, 2025 and 2024, respectively. The effective tax rates for the nine months ended September 30, 2025 and 2024 were 0.6% and (1.4)%, respectively. The higher effective tax rate during the nine months ended September 30, 2025, compared to the nine months ended September 30, 2024, was primarily due to the tax effect of goodwill impairment and the release of reserves related to uncertain tax positions.

Liquidity and Capital Resources

Our primary sources of liquidity are cash and cash equivalents, internally generated cash flow from operations and our shelf registration statement that provides for the issuance of common stock, preferred stock, warrants and units up to an amount equal to \$100 million. Our expected cash outlays relate primarily to cash payments due under our Credit Agreement described below as well as salaries, inventory, and capital expenditures. We held cash and cash equivalents of \$6.8 million and \$4.1 million as of September 30, 2025 and December 31, 2024, respectively. Borrowings outstanding, net of unamortized deferred financing costs, were \$34.0 million and \$37.0 million as of September 30, 2025 and December 31, 2024, respectively.

The Coronavirus Aid, Relief, and Economic Security Act of 2020 (the “CARES Act”) provided an employee retention tax credit (“ERTC”) that was a refundable tax credit against certain employer taxes. The Company has received ERTC refunds of \$5.4 million as of September 30, 2025. The Company’s compliance with the program’s qualifications may be subject to audit through May 2029, which is when the statute of limitation expires.

We maintain the Credit Agreement, which originally provided for a term loan of \$40.0 million and a \$25.0 million revolving credit facility with an original maturity of December 22, 2025. On March 10, 2025, we entered into an amendment to the Credit Agreement (the “March 2025 Amendment”). The March 2025 Amendment provided, among other things, that the Lenders’ commitment under our revolving credit facility would be capped at \$12.65 million, which was the amount outstanding thereunder as of the date thereof, and thus we are unable to make additional borrowings under our revolving credit facility. The March 2025 Amendment also established certain Refinancing Milestones in connection with the refinancing of the Credit Agreement (the “Refinancing”), including receipt of a term sheet or commitment letter from one or more potential lenders, by the dates provided in the March 2025 Amendment, and the Company’s consummation of the Refinancing by June 30, 2025. Pursuant to the March 2025 Amendment, the Lenders also agreed not to assert any breaches of the financial covenants included in the Credit Agreement for the first quarter of fiscal year 2025 provided that we continued to comply with our payment obligations, achieved the Refinancing Milestones, maintained minimum liquidity (defined as the sum of (a) unrestricted cash and cash equivalents and (b) the amount by which the aggregate amount committed under the Company’s revolving credit facility exceeds the total amount drawn under the credit facility) of \$3.5 million and provided the administrative agent with certain financial reports. In addition, pursuant to the terms of the March 2025 Amendment the applicable interest rate margin was increased such that interest rate was equal to a rate per annum based on the Secured Overnight Financing Rate (“SOFR”) plus 400 bps and amortization payments were revised so that a proportionate payment must be made on a monthly rather than a quarterly basis.

As of June 30, 2025, we were not in compliance with the Refinancing Milestones and quarterly financial covenants contained in the March 2025 Amendment. On August 8, 2025, we entered into the August 2025 Amendment Agreement, pursuant to which the Lenders and administrative agent agreed, subject to the terms contained in the August 2025 Amendment, to waive the events of default due to the Company’s failure to achieve certain Refinancing Milestones and its failure to comply with the consolidated net leverage ratio covenant and the consolidated fixed charge coverage ratio covenant as of the June 30, 2025 test date. Pursuant to the terms of the August 2025 Amendment, the Lenders also agreed not to test the net leverage ratio financial covenant and the consolidated fixed charge coverage ratio financial covenant for the fiscal quarter ended September 30, 2025, and to reduce the Company’s covenant to maintain minimum liquidity (defined as the sum of (a) unrestricted cash and (b) the amount by which the aggregate amount committed under the Company’s revolving credit facility exceeds the total amount drawn under the credit facility) of \$3.0 million. The August 2025 Amendment also added as a mandatory prepayment event the receipt of cash proceeds upon a Refinancing or upon the sale of the equity interests or all or substantially all of the assets of the Company. In addition, pursuant to the terms of the August 2025 Amendment, the applicable interest rate margin was increased such that the interest rate is equal to a rate per annum based on the SOFR plus 700 bps. In connection with the August 2025 Amendment, the Company has also agreed to accomplish steps towards the Refinancing or repayment of the Credit Agreement by no later than December 5, 2025. The Company continues to make progress on these steps, and is working actively to reach a definitive agreement that will accomplish one of these outcomes. The failure to accomplish such steps on the agreed timeline shall constitute an event of default under the Credit Agreement. In such event, in addition to other actions the Lenders may require, the amounts outstanding under the Credit Agreement may become immediately due and payable.

The Company continues to explore alternative sources of capital that would allow it to refinance the outstanding indebtedness under the Credit Agreement, but its ability to access such other sources of capital is uncertain.

There is no assurance that such capital will be available, be obtainable on commercially acceptable terms, or provide the Company with sufficient funds to meet its objectives. Based on its anticipated cash flows from operations, unless the Company is able to access other sources of capital or extend the date for repayment under the Credit Agreement, the Company will be unable to pay its debt obligations and fund its operations for at least twelve months from the date of issuance of the unaudited consolidated financial statements contained in this Quarterly Report on Form 10-Q. As a result, there is substantial doubt about the Company's ability to continue as a going concern.

CONDENSED CONSOLIDATED CASH FLOW STATEMENTS

(in thousands)	Nine Months Ended September 30,	
	2025	2024
Net cash provided by (used in) operating activities	\$ 6,825	\$ (285)
Net cash used in investing activities	(1,264)	(878)
Net cash (used in) provided by financing activities	(3,740)	1,226
Effect of exchange rate changes on cash	888	223
Increase in cash and cash equivalents	\$ 2,709	\$ 286

Net cash provided by (used in) operations was \$6.8 million and \$(0.3) million for the nine months ended September 30, 2025 and 2024, respectively. Cash flow from operations for the nine months ended September 30, 2025 was positively impacted by a reduction in accounts receivable of \$2.8 million, a reduction in inventories of \$1.6 million, and \$2.2 million of cash inflows from ERTC refunds received.

Net cash used in investing activities was \$1.3 million for the nine months ended September 30, 2025, compared to cash used in investing activities of \$0.9 million for the nine months ended September 30, 2024. Cash used in investing activities for the nine months ended September 30, 2025 consisted of \$1.3 million of capital expenditures for manufacturing and capitalized software development. Cash used in investing activities for the nine months ended September 30, 2024 consisted of \$2.8 million of capital expenditures for manufacturing and information technology infrastructure and software development, offset by \$1.9 million in proceeds from the sale of marketable equity securities.

Net cash (used in) provided by financing activities was \$(3.7) million and \$1.2 million for the nine months ended September 30, 2025 and 2024, respectively. During the nine months ended September 30, 2025, we made \$3.0 million in debt repayments on our term loan and paid \$0.7 million in debt issuance costs as part of the March 2025 Amendment and the August 2025 Amendment. During the nine months ended September 30, 2024, debt outstanding under our credit facility increased by \$1.2 million, consisting of net borrowings under our revolver of \$6.2 million, and payments of \$5.0 million against the term loan.

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, primarily the euro and British pound.

During the three months ended September 30, 2025, changes in foreign currency exchange rates resulted in a favorable effect on revenues of \$0.3 million and an unfavorable effect on expenses of \$0.6 million. During the nine months ended September 30, 2025, changes in foreign currency exchange rates resulted in a favorable effect on revenues of \$0.6 million and an unfavorable effect on expenses of \$0.9 million.

The gain (loss) associated with the translation of our foreign equity into U.S. dollars included as a component of other comprehensive loss was \$(0.8) million and \$1.6 million for the three months ended September 30, 2025 and 2024, respectively, and \$3.1 million and \$0.7 million for the nine months ended September 30, 2025 and 2024, respectively.

Currency exchange rate fluctuations included as a component of net loss resulted in currency gain (loss) of \$0.0 million and \$(0.4) million for three months ended September 30, 2025 and 2024, respectively, and \$0.6 million and \$(0.5) million for both the nine months ended September 30, 2025 and 2024, respectively.

Critical Accounting Policies

There have been no material changes to the critical accounting policies underlying the accompanying unaudited consolidated financial statements and as set forth in Part II, Item 7 included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2024.

Recent Accounting Pronouncements

For information on recent accounting pronouncements impacting our business, see “Recently Issued Accounting Pronouncements Yet to Be Adopted” included in Note 1 to our Condensed Consolidated Financial Statements included in Part I, Item 1. of this report.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Not Applicable.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Under the supervision of our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of September 30, 2025.

Disclosure controls and procedures are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include controls and procedures designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure. As described below, we previously identified material weaknesses in our internal control over financial reporting. Solely as a result of these material weaknesses, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were not effective as of September 30, 2025.

Previously Reported Material Weaknesses

As reported in Part II, Item 9A. “Controls and Procedures” of our Annual Reports on Form 10-K for the year ended December 31, 2024, we identified material weaknesses in our internal control over financial reporting related to controls over (i) our order to cash cycle and (ii) our physical count of inventories. Specifically, we did not design and maintain effective manual controls over the processing and review of a substantial portion of our revenue transactions. Additionally, we did not design and maintain an effective cycle count program to verify quantities of inventories held at Company locations that account for a substantial portion of inventories. The timeliness, level of precision, and appropriate segregation of duties in our review processes over revenue transactions and our physical counts of inventories were not sufficient to prevent, detect, and correct potential misstatements in a timely manner.

While management, with oversight from the Audit Committee of our Board of Directors, has made significant progress in the implementation of changes to our internal control over financial reporting in order to remediate the control deficiencies that resulted in the material weaknesses as previously disclosed in our Form 10-K for the fiscal year ended December 31, 2024, additional time is required to complete the material weakness remediation work. We expect to continue our efforts throughout the remainder of fiscal year 2025 and during 2026. We believe that the implementation of the remediation plans disclosed under “Part II - Item 9A - Controls and Procedures” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, will allow us to address the deficient controls within our internal control environment, which will facilitate the remediation of the material weaknesses. The material weaknesses will not be considered remediated until management completes the design and implementation of the measures disclosed under “Part II - Item 9A - Controls and Procedures” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2024 and the controls operate for a sufficient period of time such that the effectiveness of those changes is demonstrated with an appropriate amount of consistency and management has concluded, through testing, that these controls are effective. We also may conclude that additional measures may be required to remediate the material weaknesses or determine to modify the remediation plans.

Changes in Internal Control over Financial Reporting

Other than changes related to remediation of the material weaknesses, there were no changes in our internal control over financial reporting during the third quarter of fiscal 2025 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating our controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud within the Company have been detected.

PART II. OTHER INFORMATION

Item 1 Legal Proceedings.

The information included in Note 13 to the Condensed Consolidated Financial Statements (Unaudited) included in Part I, Item 1 of this quarterly report is incorporated herein by reference.

Item 1A. Risk Factors.

You should carefully consider the risk factors discussed in Part I, “Item 1A. Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, which could materially affect our business, financial position, or future results of operations. The risks described in our Annual Report on Form 10-K are not the only risks we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also materially adversely affect our business, financial position, or future results of operations. The risk factors set forth below updates, and should be read together with, the risk factors described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2024.

We have substantial debt, and the Lenders have waived our non-compliance with certain of the covenants in our Credit Agreement. If we fail to comply with the terms and conditions of the waiver, or if we fail to comply with covenants in our Credit Agreement in the future, the Lenders may require the amounts outstanding thereunder to become immediately due and payable.

As of September 30, 2025, there was indebtedness of \$34.0 million, net of unamortized deferred financing cost, outstanding under the Credit Agreement. As of June 30, 2025, we were not in compliance with the Refinancing Milestones and quarterly financial covenants contained in the March 2025 Amendment. Pursuant to the August 2025 Amendment, the Lenders and administrative agent agreed, subject to the terms contained in the August 2025 Amendment, to waive the Company’s events of default under the Credit Agreement. Pursuant to the terms of the August 2025 Amendment, the Lenders also agreed not to test net leverage ratio the financial covenant and the consolidated fixed charge coverage ratio financial covenant for the fiscal quarter ended September 30, 2025, and to reduce the Company’s covenant to maintain minimum liquidity (defined as the sum of (a) unrestricted cash and (b) the amount by which the aggregate amount committed under the Company’s revolving credit facility exceeds the total amount drawn under the credit facility) of \$3.0 million. In connection with the August 2025 Amendment, the Company has also agreed to accomplish steps towards the Refinancing or repayment of the Credit Agreement by no later than December 5, 2025. The Company continues to make progress on these steps, and is working actively to reach a definitive agreement that will accomplish one of these outcomes. The failure to accomplish such steps on the agreed timeline shall constitute an event of default under the Credit Agreement.

If we are not able to comply with the terms and conditions of the August 2025 Amendment, or if we are otherwise unable to maintain compliance with the covenants under the Credit Agreement, as amended, in addition to other actions the Lenders may require, the amounts outstanding under the Credit Agreement may become immediately due and payable. There can be no assurance that the Lenders will not take action to collect payment of our debt or dispose of collateral securing the debt. Our cash flow and existing capital resources may be insufficient to repay our debt, in which such case prior thereto we would have to repay, refinance and or restructure the obligations under the Credit Agreement, including with proceeds from the sale of assets, and additional equity or debt capital. If we are unsuccessful in obtaining such extension, or entering into such repayment, refinance or restructuring prior to maturity or acceleration of repayment, the Lenders could foreclose against their collateral or seek other remedies, which would jeopardize our ability to continue our current operations.

We have received written notice from Nasdaq that we are not in compliance with Nasdaq’s minimum bid price requirements and if we are unable to regain compliance with Nasdaq continued listing standards, which may require effecting a reverse stock split of our common stock, we could be delisted from Nasdaq, which would negatively impact our business, our ability to raise capital, and the market price and liquidity of our common stock.

The Nasdaq Stock Market LLC (“Nasdaq”) Listing Rule 5450(a)(1) requires that securities listed on The Nasdaq Global Market maintain a minimum bid price of \$1.00 per share (the “Minimum Bid Price Requirement”), and Nasdaq Listing Rule 5810(c)(3)(A) provides that a failure to meet the Minimum Bid Price Requirement exists if the deficiency continues for a period of thirty (30) consecutive business days.

As previously disclosed, on April 4, 2025, the Company received written notice (the “Notification Letter”) from Nasdaq notifying the Company that, based on the closing bid price of the Company’s common stock for the thirty (30) consecutive business days from February 21, 2025 to April 3, 2025, the Company no longer meets the Minimum Bid Price Requirement. The Notification Letter had no immediate effect on the listing of the Company’s common stock on The Nasdaq Global Market. The Company was provided an initial compliance period of 180 calendar days, or until October 1, 2025, to regain compliance with the Minimum Bid Price Requirement. During the compliance period, the Company’s shares of common stock continued to be listed and traded on The Nasdaq Global Market

On October 2, 2025, we received approval from the Listing Qualifications Department of Nasdaq to transfer the listing of our common stock from The Nasdaq Global Market to The Nasdaq Capital Market (the “Approval”). Our common stock was transferred to The Nasdaq Capital Market effective as of the opening of business on October 3, 2025, and continues to trade under the symbol “HBIO.” The Nasdaq Capital Market operates in substantially the same manner as The Nasdaq Global Market, and listed companies must meet certain financial requirements and comply with Nasdaq’s corporate governance requirements. As a result of the Approval and transfer to The Nasdaq Capital Market, we were granted an additional 180-day grace period, or until March 30, 2026, to regain compliance with the Minimum Bid Price Requirement. If it is necessary to do so, we will seek stockholder approval for a reverse stock split to regain compliance with this requirement. If we fail to regain compliance, including due to our stockholders failing to approve a reverse stock split, our common stock will be subject to delisting. Our ability to publicly or privately sell equity securities and the liquidity of our common stock could be adversely affected if our common stock is delisted.

We cannot provide any guarantee that we will regain compliance during the grace period or be able to maintain compliance with Nasdaq’s listing requirements in the future. If we are not able to regain compliance during the grace period, our common stock will be subject to delisting. Delisting from Nasdaq could adversely affect our ability to raise additional financing through public or private sales of equity securities, could significantly affect the ability of investors to trade our securities and could negatively affect the value and liquidity of our common stock. Delisting could also have other negative impacts, including the potential loss of confidence by our employees and customers, the loss of investor and analyst interest in the Company and in our common stock and fewer business development opportunities for the Company.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None of our directors or executive officers adopted or terminated a Rule 10b5-1 trading arrangement (as defined in Item 408(a) of Regulation S-K) or a non-Rule 10b5-1 trading arrangement (as defined in Item 408(c) of Regulation S-K) during the quarterly period covered by this report.

Item 6. Exhibits.

10.1	Sixth Amendment to and Waiver Under Credit Agreement, dated as of August 8, 2025, by and among Harvard Bioscience, Inc., Citizens Bank, N.A., in its capacity as the administrative agent, and the lenders party thereto. Exhibit to the Current Report on Form 8-K (filed August 11, 2025) and incorporated by reference thereto.
31.1	Certification of Principal 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 Principal 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	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted in Inline XBRL and contained in Exhibit 101)

* 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

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Mark Frost, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Harvard Bioscience, Inc.
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)), and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date November 6, 2025

/s/ MARK FROST

Mark Frost
Interim Chief Financial Officer
(Principal Financial Officer)

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, John Duke, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Harvard Bioscience, Inc.
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)), and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 6, 2025

/s/ JOHN DUKE

John Duke
Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION OF PERIODIC FINANCIAL REPORT PURSUANT TO 18 U.S.C. SECTION 1350

The undersigned officer of Harvard Bioscience, Inc. (the “Company”) hereby certifies to his knowledge that the Company’s Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2025 (the “Report”) to which this certification is being furnished as an exhibit, as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This certification is provided solely pursuant to 18 U.S.C. Section 1350 and Item 601(b)(32) of Regulation S-K (Item 601(b)(32)) promulgated under the Securities Act of 1933, as amended (the “Securities Act”), and the Exchange Act. In accordance with clause (ii) of Item 601(b)(32), this certification (A) shall not be deemed “filed” for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and (B) shall not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

Date: November 6, 2025

/s/ MARK FROST

Name: Mark Frost

Title: Interim Chief Financial Officer

CERTIFICATION OF PERIODIC FINANCIAL REPORT PURSUANT TO 18 U.S.C. SECTION 1350

The undersigned officer of Harvard Bioscience, Inc. (the “Company”) hereby certifies to his knowledge that the Company’s Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2025 (the “Report”) to which this certification is being furnished as an exhibit, as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This certification is provided solely pursuant to 18 U.S.C. Section 1350 and Item 601(b)(32) of Regulation S-K (Item 601(b)(32)) promulgated under the Securities Act of 1933, as amended (the “Securities Act”), and the Exchange Act. In accordance with clause (ii) of Item 601(b)(32), this certification (A) shall not be deemed “filed” for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and (B) shall not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

Date: November 6, 2025

/s/ JOHN DUKE

Name: John Duke
Title: Chief Executive Officer