UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2024

OR

☐ **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: 001-37557

Penumbra, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**05-0605598**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

One Penumbra Place

Alameda, CA 94502

(Address of principal executive offices, including zip code)

(510) 748-3200

(Registrant's telephone number, including area code)

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

Title of each class	**Trading Symbol**	**Name of each exchange on which registered**
Common Stock, Par value $0.001 per share	PEN	The New York Stock Exchange

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	☒	Accelerated filer	☐
Non-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 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 July 16, 2024, the registrant had 38,843,936 shares of common stock, par value $0.001 per share, outstanding.

FORM 10-Q

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PART I - FINANCIAL INFORMATION

ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS.

Penumbra, Inc.

Condensed Consolidated Balance Sheets

(unaudited)

(in thousands)

	June 30, 2024	December 31, 2023
Assets		
Current assets:		
Cash and cash equivalents	$ 288,332	$ 167,486
Marketable investments	51,363	121,701
Accounts receivable, net of allowance for credit losses of $ 3,075 and $3,169 at June 30, 2024 and December 31, 2023, respectively	200,831	201,768
Inventories	373,799	388,023
Prepaid expenses and other current assets	29,470	36,424
Total current assets	943,795	915,402
Property and equipment, net	57,709	72,691
Operating lease right-of-use assets	183,316	188,756
Finance lease right-of-use assets	29,366	31,092
Intangible assets, net	6,955	71,056
Goodwill	166,050	166,270
Deferred taxes	108,852	85,158
Other non-current assets	38,518	25,880
Total assets	$ 1,534,561	$ 1,556,305
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 32,822	$ 27,155
Accrued liabilities	104,071	110,555
Current operating lease liabilities	11,776	11,203
Current finance lease liabilities	2,325	2,231
Total current liabilities	150,994	151,144
Non-current operating lease liabilities	192,216	197,229
Non-current finance lease liabilities	22,501	23,680
Other non-current liabilities	7,619	5,308
Total liabilities	373,330	377,361
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Common stock	39	39
Additional paid-in capital	1,080,580	1,047,198
Accumulated other comprehensive loss	(5,048)	(3,151)
Retained earnings	85,660	134,858
Total stockholders' equity	1,161,231	1,178,944
Total liabilities and stockholders' equity	$ 1,534,561	$ 1,556,305

See accompanying notes to the unaudited condensed consolidated financial statements

Penumbra, Inc.

Condensed Consolidated Statements of Operations

(unaudited)

(in thousands, except share and per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Revenue	$ 299,403	$ 261,499	$ 578,058	$ 502,897
Cost of revenue	136,574	94,638	234,090	184,964
Gross profit	162,829	166,861	343,968	317,933
Operating expenses:				
Research and development	24,942	21,537	49,568	41,523
Sales, general and administrative	141,903	127,435	286,315	250,513
Impairment charge	76,945	—	76,945	—
Total operating expenses	243,790	148,972	412,828	292,036
(Loss) income from operations	(80,961)	17,889	(68,860)	25,897
Interest and other income, net	3,087	1,647	5,612	2,291
(Loss) income before income taxes	(77,874)	19,536	(63,248)	28,188
(Benefit from) provision for income taxes	(17,674)	576	(14,050)	666
Net (loss) income	$ (60,200)	$ 18,960	$ (49,198)	$ 27,522
Net (loss) income per share:				
Basic	$ (1.55)	$ 0.49	$ (1.27)	$ 0.72
Diluted	$ (1.55)	$ 0.48	$ (1.27)	$ 0.70
Weighted average shares outstanding:				
Basic	38,793,341	38,320,999	38,755,337	38,254,042
Diluted	38,793,341	39,201,155	38,755,337	39,151,412

See accompanying notes to the unaudited condensed consolidated financial statements

Penumbra, Inc.

Condensed Consolidated Statements of Comprehensive (Loss) Income

(unaudited)

(in thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Net (loss) income	$ (60,200)	$ 18,960	$ (49,198)	$ 27,522
Other comprehensive (loss) income, net of tax:				
Foreign currency translation adjustments, net of tax	(451)	654	(2,304)	1,057
Net change in unrealized gains or losses on available-for-sale securities, net of tax	241	628	407	1,488
Total other comprehensive (loss) income, net of tax	(210)	1,282	(1,897)	2,545
Comprehensive (loss) income	$ (60,410)	$ 20,242	$ (51,095)	$ 30,067

See accompanying notes to the unaudited condensed consolidated financial statements

Penumbra, Inc.

Condensed Consolidated Statements of Stockholders' Equity

(unaudited)

(in thousands, except share amounts)

	Common Stock		Additional Paid-in	Accumulated Other		Total Stockholders'
	Shares	Amount	Capital	Comprehensive Loss	Retained Earnings	Equity
Balance at December 31, 2023	38,681,549	$ 39	$ 1,047,198	$ (3,151)	$ 134,858	$ 1,178,944
Issuance of common stock	76,597	—	238	—	—	238
Shares held for tax withholdings	(1,732)	—	(421)	—	—	(421)
Stock-based compensation	—	—	15,455	—	—	15,455
Other comprehensive loss	—	—	—	(1,687)	—	(1,687)
Net income	—	—	—	—	11,002	11,002
Balance at March 31, 2024	38,756,414	$ 39	$ 1,062,470	$ (4,838)	$ 145,860	$ 1,203,531
Issuance of common stock	28,043	—	61	—	—	61
Issuance of common stock under employee stock purchase plan	51,752	—	8,861	—	—	8,861
Shares held for tax withholdings	(428)	—	(89)	—	—	(89)
Stock-based compensation	—	—	9,277	—	—	9,277
Other comprehensive loss	—	—	—	(210)	—	(210)
Net loss	—	—	—	—	(60,200)	(60,200)
Balance at June 30, 2024	38,835,781	$ 39	$ 1,080,580	$ (5,048)	$ 85,660	$ 1,161,231

	Common Stock		Additional Paid-in	Accumulated Other		Total Stockholders'
	Shares	Amount	Capital	Comprehensive Loss	Retained Earnings	Equity
Balance at December 31, 2022	38,107,977	$ 38	$ 963,040	$ (8,124)	$ 43,904	$ 998,858
Issuance of common stock	134,936	—	2,209	—	—	2,209
Shares held for tax withholdings	(813)	—	(204)	—	—	(204)
Stock-based compensation	—	—	13,781	—	—	13,781
Other comprehensive income	—	—	—	1,263	—	1,263
Net income	—	—	—	—	8,562	8,562
Balance at March 31, 2023	38,242,100	$ 38	$ 978,826	$ (6,861)	$ 52,466	$ 1,024,469
Issuance of common stock	114,930	—	1,614	—	—	1,614
Issuance of common stock under employee stock purchase plan	51,264	—	8,385	—	—	8,385
Shares held for tax withholdings	(2,689)	—	(822)	—	—	(822)
Stock-based compensation	—	—	12,655	—	—	12,655
Other comprehensive income	—	—	—	1,282	—	1,282
Net income	—	—	—	—	18,960	18,960
Balance at June 30, 2023	38,405,605	$ 38	$ 1,000,658	$ (5,579)	$ 71,426	$ 1,066,543

See accompanying notes to the unaudited condensed consolidated financial statements

Penumbra, Inc.
Condensed Consolidated Statements of Cash Flows
(unaudited)
(in thousands)

	Six Months Ended June 30,	
	2024	**2023**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net (loss) income	$ (49,198)	$ 27,522
Adjustments to reconcile net (loss) income to net cash provided by operating activities:		
Depreciation and amortization	15,166	13,285
Stock-based compensation	23,129	25,589
Impairment charge	76,945	—
Inventory write-downs	36,184	1,399
Deferred taxes	(23,736)	(2,450)
Other	701	3,587
Changes in operating assets and liabilities:		
Accounts receivable	(2,029)	(8,421)
Inventories	(22,953)	(25,758)
Prepaid expenses and other current and non-current assets	2,140	(5,901)
Accounts payable	5,492	(259)
Accrued expenses and other non-current liabilities	(935)	1,635
Net cash provided by operating activities	60,906	30,228
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of non-marketable investments	(10,000)	—
Purchases of marketable investments	(11,308)	(15,194)
Proceeds from maturities of marketable investments	82,926	27,970
Purchases of property and equipment	(10,360)	(8,236)
Other	1,600	(500)
Net cash provided by investing activities	52,858	4,040
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from exercises of stock options	299	3,823
Proceeds from issuance of stock under employee stock purchase plan	8,861	8,385
Payment of employee taxes related to vested stock	(510)	(1,026)
Payments of finance lease obligations	(1,109)	(957)
Other	(61)	(155)
Net cash provided by financing activities	7,480	10,070
Effect of foreign exchange rate changes on cash and cash equivalents	(398)	(29)
NET INCREASE IN CASH AND CASH EQUIVALENTS	120,846	44,309
CASH AND CASH EQUIVALENTS—Beginning of period	167,486	69,858
CASH AND CASH EQUIVALENTS—End of period	$ 288,332	$ 114,167
NONCASH INVESTING AND FINANCING ACTIVITIES:		
Right-of-use assets obtained in exchange for operating lease obligations	$ 864	$ 1,155
Right-of-use assets obtained in exchange for finance lease obligations	$ 25	$ 76
Purchase of property and equipment funded through accounts payable and accrued liabilities	$ 1,414	$ 1,468
SUPPLEMENTAL CASH FLOW INFORMATION:		
Cash paid for amounts included in the measurement of operating lease liabilities	$ 11,013	$ 9,816
Cash paid for income taxes	$ 9,543	$ 2,946

See accompanying notes to the unaudited condensed consolidated financial statements

Penumbra, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

1. Organization and Description of Business

Penumbra, Inc. (the "Company") is a global healthcare company focused on innovative therapies. The Company designs, develops, manufactures and markets novel products and has a broad portfolio that addresses challenging medical conditions in markets with significant unmet need. The Company focuses on developing, manufacturing and marketing novel products for use by specialist physicians and other healthcare providers to drive improved clinical and health outcomes. The Company believes that the cost-effectiveness of our products is attractive to our customers.

2. Summary of Significant Accounting Policies

Basis of Presentation and Consolidation

The accompanying condensed consolidated balance sheet as of June 30, 2024, the condensed consolidated statements of operations, the condensed consolidated statements of comprehensive income (loss), and the condensed consolidated statements of stockholders' equity for the three and six months ended June 30, 2024 and 2023, and the condensed consolidated statements of cash flows for the six months ended June 30, 2024 and 2023 are unaudited. The unaudited condensed consolidated financial statements included herein have been prepared by the Company in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and the applicable rules and regulations of the U.S. Securities and Exchange Commission (the "SEC") for interim financial information. Accordingly, they do not include all of the information and notes required by U.S. GAAP for complete financial statements. The condensed consolidated balance sheet data as of December 31, 2023 was derived from the audited financial statements as of that date.

The unaudited condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and, in the opinion of management, reflect all adjustments of a normal recurring nature considered necessary to state fairly the Company's financial position as of June 30, 2024, the results of its operations for the three and six months ended June 30, 2024 and 2023, the changes in its comprehensive income (loss) and stockholders' equity for the three and six months ended June 30, 2024 and 2023, and its cash flows for the six months ended June 30, 2024 and 2023. The results for the three and six months ended June 30, 2024 are not necessarily indicative of the results that may be expected for the year ending December 31, 2024 or for any other future annual or interim period. Certain changes in presentation were made to interest income (expense), net and other income (expense), net in the condensed consolidated statements of operations for the three and six months ended June 30, 2023 to conform to the presentation for the three and six months ended June 30, 2024.

The information included in this Quarterly Report on Form 10-Q should be read in conjunction with the audited consolidated financial statements and notes thereto for the fiscal year ended December 31, 2023, included in the Company's Annual Report on Form 10-K as filed with the SEC on February 22, 2024. There have been no changes to the Company's significant accounting policies during the six months ended June 30, 2024, as compared to the significant accounting policies described in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2023.

The condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and equity accounts; disclosure of contingent assets and liabilities at the date of the financial statements; and the reported amounts of revenues and expenses during the reporting period. On an ongoing basis, the Company evaluates its estimates, including those related to marketable investments, non-marketable investments, allowances for credit losses, the amount of variable consideration included in the transaction price, warranty reserve, valuation of inventories, useful lives of property and equipment, intangibles, operating and financing lease right-of-use ("ROU") assets and liabilities, income taxes, the fair value of long-lived assets tested for impairment, and other contingencies, including the probability of achieving performance targets associated with equity awards with performance conditions, among others. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other data. Actual results could differ from those estimates.

Penumbra, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

Segments

The Company determined its operating segment on the same basis that it uses to evaluate its performance internally. The Company has one business activity: the design, development, manufacturing and marketing of innovative medical products, and operates as one operating segment. The Company's chief operating decision-maker, its Chief Executive Officer, reviews its consolidated operating results for the purpose of allocating resources and evaluating financial performance.

Recently Issued Accounting Standards

In December 2023, the FASB issued Accounting Standards Update ("ASU") No. 2023-09, Income Taxes— Improvements to Income Tax Disclosures. The standard enhances annual income tax disclosures, by requiring additional disaggregated information about an entity's effective tax rate reconciliation and income taxes paid. The ASU adds guidance that requires public business entities to disclose additional information in specified categories with respect to the reconciliation of the effective tax rate to the statutory rate (the rate reconciliation) for federal, state, and foreign income taxes. It also requires greater detail about individual reconciling items in the rate reconciliation to the extent the impact of those items exceeds a specified threshold (5%). In addition to new disclosures associated with the rate reconciliation, the ASU requires information pertaining to taxes paid (net of refunds received) to be disaggregated for federal, state, and foreign taxes and further disaggregated for specific jurisdictions to the extent the related amounts exceed the quantitative threshold. For public business entities, the amendments in ASU 2023-09 are effective for annual periods beginning after December 15, 2024. Early adoption is permitted for annual financial statements not yet issued or made available for issuance. The Company is assessing the impact the new guidance will have on the disclosures within its consolidated financial statements and does not elect to early adopt as of June 30, 2024.

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures. The ASU expands public entities' segment disclosures by requiring disclosure of significant segment expenses that are regularly reviewed by the CODM and included within each reported measure of segment profit or loss, an amount and description of its composition for other segment items, and interim disclosures of a reportable segment's profit or loss and assets. The ASU also allows, in addition to the measure that is most consistent with U.S. GAAP, the disclosure of additional measures of segment profit or loss that are used by the CODM in assessing segment performance and deciding how to allocate resources. All disclosure requirements under ASU 2023-07 are also required for public entities with a single reportable segment. The ASU is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, on a retrospective basis, with early adoption permitted. The Company is assessing the impact the new guidance will have on the disclosures within its consolidated financial statements and does not elect to early adopt as of June 30, 2024.

In March 2024, the SEC issued Release Nos. 33-11275; 34-99678 "The Enhancement and Standardization of Climate-Related Disclosures for Investors", which will require registrants to provide certain climate-related information in their registration statements and annual reports, including information about a registrant's climate-related risks that have materially impacted, or are reasonably likely to have a material impact on, its business strategy, results of operations, or financial condition, as well as certain disclosures related to severe weather events and other natural conditions in a registrant's audited financial statements. The disclosure requirements follow a phase-in timeline, with initial requirements beginning with the Company's annual report for the year ending December 31, 2025. On April 4, 2024, the SEC voluntarily stayed implementation of this new rule pending judicial review. The Company is currently analyzing the impact that the new climate-related rules will have on the disclosures within its consolidated financial statements and will continue to monitor the status of the rules while legal challenges are pending.

3. Investments and Fair Value of Financial Instruments

Marketable and Non-Marketable Investments

The Company's marketable and non-marketable investments have been classified and accounted for as available-for-sale. The Company's marketable and non-marketable investments as of June 30, 2024 and December 31, 2023 were as follows (in thousands):

Penumbra, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

	June 30, 2024				
		Securities with net gains or losses in accumulated other comprehensive income (loss)			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Allowance for Credit Loss	Fair Value
Marketable investments:					
Commercial paper	$ 8,906	$ 1	$ (2)	$ —	$ 8,905
Certificate of Deposit	3,050	1	—	—	3,051
U.S. treasury	7,761	—	(104)	$ —	7,657
U.S. states and municipalities	900	—	—	—	900
Corporate bonds	30,932	4	(86)	—	30,850
Total	51,549	6	(192)	—	51,363
Non-marketable investments:					
Non-marketable debt securities	10,000	96	—	—	10,096
Total	10,000	96	—	—	10,096
Total	$ 61,549	$ 102	$ (192)	$ —	$ 61,459

	December 31, 2023				
		Securities with net gains or losses in accumulated other comprehensive income (loss)			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Allowance for Credit Loss	Fair Value
Marketable investments:					
Commercial paper	$ 39,727	$ 32	$ (3)	$ —	$ 39,756
Certificate of Deposit	6,392	9	—	—	6,401
U.S. treasury	10,226	—	(160)	—	10,066
U.S. states and municipalities	2,950	—	(35)	—	2,915
Corporate bonds	62,964	29	(430)	—	62,563
Total	$ 122,259	$ 70	$ (628)	$ —	$ 121,701

As of June 30, 2024, the total amortized cost basis of the Company's available-for-sale debt securities, excluding non-marketable debt securities, is an unrealized loss position of $0.2 million, which was primarily attributable to rising interest rates since purchase. The Company reviewed its available-for-sale securities in an unrealized loss position and concluded that the decline in fair value was not related to credit losses and is recoverable. As of June 30, 2024, the Company's non-marketable available-for sale debt securities were not in an unrealized loss position. During the three and six months ended June 30, 2024, no allowance for credit losses was recorded and instead the unrealized losses are reported as a component of accumulated other comprehensive loss.

Penumbra, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

The following tables present the gross unrealized losses and the fair value for those marketable investments that were in an unrealized loss position for less than and more twelve months as of June 30, 2024 and December 31, 2023 (in thousands):

	June 30, 2024					
	Less than 12 months		More than 12 months		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Marketable investments:						
Commercial paper	$ 5,834	$ (2)	$ —	$ —	$ 5,834	$ (2)
U.S. treasury	—	—	7,657	(104)	7,657	(104)
Corporate bonds	5,003	(2)	9,665	(84)	14,668	(86)
Total	$ 10,837	$ (4)	$ 17,322	$ (188)	$ 28,159	$ (192)

	December 31, 2023					
	Less than 12 months		More than 12 months		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Marketable investments:						
Commercial paper	$ 16,241	$ (3)	$ —	$ —	$ 16,241	$ (3)
U.S. treasury	5,677	(54)	4,389	(106)	10,066	(160)
U.S. states and municipalities	—	—	2,915	(35)	2,915	(35)
Corporate bonds	15,945	(2)	30,912	(428)	46,857	(430)
Total	$ 37,863	$ (59)	$ 38,216	$ (569)	$ 76,079	$ (628)

The contractual maturities of the Company's marketable investments as of June 30, 2024 (in thousands):

	June 30, 2024	
Marketable investments:	Amortized Cost	Fair Value
Due in one year	$ 48,740	$ 48,607
Due in one to five years	2,809	2,756
Total	$ 51,549	$ 51,363

Non-Marketable Investments

During the three months ended March 31, 2024, the Company completed a strategic investment in a privately held company. Under the terms of the investment, the Company paid $10.0 million in exchange for shares of Series B preferred stock which represented an immaterial investment in the outstanding equity securities of the privately held company. The Company determined that the investment did not meet the criteria to be accounted for as an equity method investment under ASC 323. The investment was accounted for as an available-for-sale debt security in accordance with ASC 320 as the preferred stock contains a contingent redemption feature at the Company's option. The investment is included in other non-current assets on the condensed consolidated balance sheet and changes in fair value are recorded in total other comprehensive (loss) income, net of tax.

Fair Value of Financial Instruments

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the reporting date. The accounting guidance establishes a three-tiered hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value:

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

Penumbra, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

Level 2 - Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The categorization of a financial instrument within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement.

The Company classifies its cash equivalents and marketable investments within Level 1 and Level 2, as it uses quoted market prices or alternative pricing sources and models utilizing market observable inputs. The Company classifies its non-marketable investments in preferred stock in privately held companies within Level 3, as they do not have a readily determinable fair value.

The Company determined the fair value of its Level 1 financial instruments, which are traded in active markets, using quoted market prices for identical instruments.

Marketable investments classified within Level 2 of the fair value hierarchy are valued based on other observable inputs, including broker or dealer quotations or alternative pricing sources. When quoted prices in active markets for identical assets or liabilities are not available, the Company relies on non-binding quotes from its investment managers, which are based on proprietary valuation models of independent pricing services. These models generally use inputs such as observable market data, quoted market prices for similar instruments, historical pricing trends of a security as relative to its peers. To validate the fair value determination provided by its investment managers, the Company reviews the pricing movement in the context of overall market trends and trading information from its investment managers. In addition, the Company assesses the inputs and methods used in determining the fair value in order to determine the classification of securities in the fair value hierarchy.

Non-marketable investments classified within Level 3 of the fair value hierarchy are valued based on unobservable inputs that are supported by little or no market activity. Current financial information of private companies may not be available and consequently the Company estimates the fair value using inputs that are based on the best available information at the measurement date. Key inputs may include the most recent financial information, financial projections, and financing transactions available for the investee and other quantitative and qualitative factors. Additionally, based on the timing, volume, and other characteristics of the available information, the Company may supplement this information by using one or more valuation techniques, including market and income approaches. The Company did not hold any non-marketable investments classified within Level 3 as of June 30, 2023 or December 31, 2023.

The following table summarizes the changes in fair value of our Level 3 non-marketable debt securities for the three and six months ended June 30, 2024 (in thousands):

	Three Months Ended June 30,	Six Months Ended June 30,
	2024	2024
Balance, beginning of the period	$ 10,000	$ —
Total gains (losses) included in other comprehensive (loss) income	96	96
Purchases	—	10,000
Balance, end of the period	$ 10,096	$ 10,096

The Company did not hold any Level 3 marketable investments as of June 30, 2024 or December 31, 2023. During the six months ended June 30, 2024 and 2023, the Company did not have any transfers between Level 1, Level 2 or Level 3 of the fair value hierarchy for marketable or non-marketable investments. Additionally, the Company did not have any financial assets and liabilities measured at fair value on a non-recurring basis as of June 30, 2024 or December 31, 2023.

Penumbra, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

The following tables set forth the Company's financial assets and liabilities measured at fair value by level within the fair value hierarchy as of June 30, 2024 and December 31, 2023 (in thousands):

	As of June 30, 2024			
	Level 1	Level 2	Level 3	Fair Value
Financial Assets				
Cash equivalents:				
Commercial paper	$ —	$ 137,612	$ —	$ 137,612
Certificate of deposit	—	14,587	—	14,587
Money market funds	52,804	—	—	52,804
U.S. treasury	12,768	—	—	12,768
Corporate bonds	—	2,466	—	2,466
Marketable investments:				
Commercial paper	—	8,905	—	8,905
Certificate of deposit	—	3,051	—	3,051
U.S. treasury	7,657	—	—	7,657
U.S. states and municipalities	—	900	—	900
Corporate bonds	—	30,850	—	30,850
Non-marketable investments:				
Non-marketable investments	—	—	10,096	10,096
Total	$ 73,229	$ 198,371	$ 10,096	$ 281,696

	As of December 31, 2023			
	Level 1	Level 2	Level 3	Fair Value
Financial Assets				
Cash equivalents:				
Money market funds	$ 86,991	$ —	$ —	$ 86,991
Marketable investments:				
Commercial paper	—	39,756	—	39,756
Certificate of Deposit	—	6,401	—	6,401
U.S. treasury	10,066	—	—	10,066
U.S. states and municipalities	—	2,915	—	2,915
Corporate bonds	—	62,563	—	62,563
Total	$ 97,057	$ 111,635	$ —	$ 208,692

4. Impairment of Immersive Healthcare Asset Group

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. During the three months ended June 30, 2024, the Company made the strategic decision to explore alternative avenues for its Immersive Healthcare business; as a consequence to this decision, the Company tested the Immersive Healthcare asset group's long-lived assets for impairment. Prior to the three months ended June 30, 2024, there were no events or circumstances that indicated the need to test for impairment.

The Immersive Healthcare asset group included substantially all the assets and liabilities associated with the Immersive Healthcare business, which primarily consisted of finite-lived developed technology intangible assets, inventory, and property and equipment associated with the developed technology. Prior to performing a recoverability test for the asset group, the Company recorded a $33.4 million charge to cost of revenue in the unaudited condensed consolidated statements of operations during the three months ended June 30, 2024 for the write-down of Immersive Healthcare inventory to net realizable value.

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The Company then performed a recoverability test for the asset group, comparing the carrying amount of the asset group to the sum of its estimated undiscounted future cash flows. The carrying amount of the asset group was determined to be not recoverable, as it exceeded the undiscounted future cash flows.

Accordingly, the Company measured the impairment loss by calculating the excess of the asset group's carrying amount over its fair value. The fair value of the asset group was determined using a discounted cash flow approach, which is considered a Level 3 measurement within the fair value hierarchy and utilized significant Level 3 inputs such as expected future cash flows, including forecasted sales, gross profit and operating expenses, and the use of an appropriate discount rate. As a result of this assessment, the Company recorded a pre-tax impairment charge of $76.9 million during the three months ended June 30, 2024, which was primarily comprised of $58.9 million in finite-lived intangible assets and $ 18.0 million in property and equipment.

5. Balance Sheet Components

Inventories

The components of inventories consisted of the following (in thousands):

	June 30, 2024	December 31, 2023
Raw materials	$ 125,915	$ 119,511
Work in process	37,170	34,489
Finished goods	210,714	234,023
Inventories	$ 373,799	$ 388,023

During the three months ended June 30, 2024, the Company recorded a $ 33.4 million charge to cost of revenue in the unaudited condensed consolidated statements of operations for the write-down of immersive healthcare inventory to net realizable value. Refer to Note “4. Impairment of Immersive Healthcare Asset Group” for more details.

Property and Equipment, Net

Property and equipment, net consisted of the following (in thousands):

	June 30, 2024	December 31, 2023
Machinery and equipment	$ 46,482	$ 43,152
Furniture and fixtures	18,520	18,049
Leasehold improvements	31,820	29,241
Software	19,924	19,939
Computers	19,239	18,427
Construction in progress	6,901	3,535
Total property and equipment	142,886	132,343
Less: Accumulated depreciation and amortization	(85,177)	(59,652)
Property and equipment, net	$ 57,709	$ 72,691

During the three months ended June 30, 2024, the Company recorded an impairment of property and equipment charge of $ 18.0 million included within accumulated depreciation and amortization in the table above. Refer to Note “4. Impairment of Immersive Healthcare Asset Group” for more details.

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Accrued Liabilities

The components of accrued liabilities consisted of the following (in thousands):

	June 30, 2024	December 31, 2023
Payroll and employee-related expenses	$ 65,911	$ 65,395
Accrued expenses	14,012	11,711
Deferred revenue	4,683	6,985
Other accrued liabilities	19,465	26,464
Total accrued liabilities	$ 104,071	$ 110,555

The following table shows the changes in the Company's estimated product warranty accrual, included in accrued liabilities, for the six months ended June 30, 2024 and twelve months ended December 31, 2023, respectively (in thousands):

	June 30, 2024	December 31, 2023
Balance at the beginning of the period	$ 5,755	$ 5,370
Accruals of warranties issued, net	(2,783)	1,865
Settlements of warranty claims	(950)	(1,480)
Balance at the end of the period	$ 2,022	$ 5,755

6. Intangible Assets

The following table presents details of the Company's acquired intangible assets as of June 30, 2024 and December 31, 2023 (in thousands, except weighted-average amortization period):

As of June 30, 2024	Weighted-Average Amortization Period	Gross Carrying Amount	Accumulated Amortization	Net
Finite-lived intangible assets:				
Developed technology[1]	8.8 years	$ 83,289	$ (83,289)	$ —
Customer relationships	15.0 years	6,388	(2,981)	3,407
Trade secrets and processes	20.0 years	5,256	(1,708)	3,548
Total intangible assets	17.6 years	$ 94,933	$ (87,978)	$ 6,955

[1]During the three months ended June 30, 2024, the Company recorded an impairment of developed technology charge of $ 58.9 million included within accumulated amortization in the table above. Refer to Note "4. Impairment of Immersive Healthcare Asset Group" for more details.

As of December 31, 2023	Weighted-Average Amortization Period	Gross Carrying Amount	Accumulated Amortization	Net
Finite-lived intangible assets:				
Developed technology	8.8 years	$ 83,289	$ (19,640)	$ 63,649
Customer relationships	15.0 years	6,579	(2,851)	3,728
Trade secrets and processes	20.0 years	5,256	(1,577)	3,679
Total intangible assets	9.6 years	$ 95,124	$ (24,068)	$ 71,056

The gross carrying amount and accumulated amortization of the customer relationships are the only intangible assets subject to foreign currency translation effects. The Company's $5.3 million trade secrets and processes intangible asset was recognized in connection with a royalty buyout agreement in 2018.

The following table presents the amortization recorded related to the Company's finite-lived intangible assets for the three and six months ended June 30, 2024 and 2023 (in thousands):

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	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Cost of revenue	$ 66	$ 66	$ 131	$ 131
Sales, general and administrative[1]	2,486	2,488	4,974	4,975
Total	$ 2,552	$ 2,554	$ 5,105	$ 5,106

[1]This does not include the impairment charge of $ 58.9 million related to the Company's immersive healthcare developed technology during the three months ended June 30, 2024. Refer to Note "4. Impairment of Immersive Healthcare Asset Group" for more information.

7. Goodwill

The following table presents the changes in goodwill during the six months ended June 30, 2024 (in thousands):

	Total Company
Balance as of December 31, 2023	$ 166,270
Foreign currency translation	(220)
Balance as of June 30, 2024	$ 166,050

Goodwill Impairment Review

The Company reviews goodwill for impairment annually on October 31, or more frequently if events or circumstances indicate that an impairment loss may have occurred. The Company operates as one segment, which is the sole reporting unit of the Company, and therefore goodwill is tested for impairment at the consolidated level. Accordingly, when assessing whether an impairment test is required more frequently than on its annual testing date, the Company considers whether events or circumstances have taken place that indicate it is more likely than not that the Company's enterprise fair value is less than the carrying amount of its one reporting unit, including goodwill. Due to the impairment of the Immersive Healthcare asset group during the three and six months ended June 30, 2024, the Company assessed the reporting unit for impairment and determined there was no impairment of goodwill.

8. Commitments and Contingencies

Royalty Obligations

In March 2005, the Company entered into a license agreement that requires the Company to make minimum royalty payments to the licensor on a quarterly basis. As of December 31, 2018, the license agreement required minimum annual royalty payments of $0.1 million in equal quarterly installments. In July 2019, the Company amended the license agreement to extend its term for an additional ten years and to increase the required minimum annual royalty payments by $0.2 million for a required minimum annual royalty payment of $ 0.3 million. Unless terminated earlier, the term of the amended license agreement shall expire June 30, 2029.

Royalty expense included in cost of sales for the three months ended June 30, 2024 and 2023 was $ 0.7 million and $0.7 million, respectively, and for the six months ended June 30, 2024 and 2023, was $1.3 million and $1.3 million respectively.

Contingencies

From time to time, the Company may have certain contingent liabilities that arise in the ordinary course of business. The Company accrues a liability for such matters when it is probable that future expenditures will be made and such expenditures can be reasonably estimated.

Indemnification

The Company enters into standard indemnification arrangements in the ordinary course of business. In many such arrangements, the Company agrees to indemnify, hold harmless, and reimburse the indemnified parties for losses suffered or incurred by the indemnified parties in connection with any trade secret, copyright, patent or other intellectual property infringement claim by any third-party with respect to the Company's technology. The Company also agrees to indemnify many

indemnified parties for product defect and similar claims. The term of these indemnification agreements is generally perpetual. The maximum potential amount of future payments the Company could be required to make under these agreements is not determinable because it involves claims that may be made against the Company in the future, but have not yet been made.

The Company has entered into indemnification agreements with its directors and officers that may require the Company to indemnify its directors and officers against liabilities that may arise by reason of their status or service as directors or officers, other than liabilities arising from willful misconduct of the individual.

The Company has not incurred costs to defend lawsuits or settle claims related to these indemnification agreements. No liability associated with any of these indemnification requirements has been recorded to date.

Litigation

From time to time, the Company is subject to certain legal proceedings, as well as demands, claims and threatened litigation that arise in the normal course of our business. The Company reviews the status of each significant matter quarterly and assesses its potential financial exposure. If the potential loss from a claim or legal proceeding is considered probable and the amount can be reasonably estimated, the Company records a liability and an expense for the estimated loss and discloses it in the Company's financial statements if it is material. If the Company determines that a loss is possible and the range of the loss can be reasonably determined, the Company does not record a liability or an expense but the Company discloses the range of the possible loss. The Company bases its judgments on the best information available at the time. As additional information becomes available, the Company reassesses the potential liability related to its pending claims and litigation and may revise its estimates.

On April 7, 2023, a former contractor who had been retained by the Company through a third party staffing agency filed a putative class action lawsuit as well as a Private Attorney General Act ("PAGA") representative action complaint against the Company in the Superior Court of the State of California for the County of Alameda, on behalf of the contractor and similarly situated Company contractors and employees in California, alleging various claims pursuant to the California Labor Code related to wages, overtime, meal and rest breaks, reimbursement of business expenses, wage statements and records, and other similar allegations. Additionally, on April 10, 2023, a current employee of the Company filed a PAGA representative action complaint against the Company in the Superior Court of the State of California for the County of Alameda, on behalf of the employee and similarly situated Company employees in California, alleging similar claims. The complaints seek payment of various alleged unpaid wages, penalties, interest and attorneys' fees in unspecified amounts. Following mediation in April 2024, in May 2024 the parties entered into a formal agreement to settle the claims for an aggregate amount of $4.6 million, subject to approval by the court. The proposed settlement agreement was submitted to the court for preliminary approval on June 18, 2024. The Company recorded an accrual of $4.6 million in its financial statements for the three months ended March 31, 2024 related to these matters. There have been no changes to the accrual as of June 30, 2024.

9. Stockholders' Equity

Stock-based Compensation

Stock-based compensation expense is associated with restricted stock units ("RSUs"), RSUs with performance conditions ("PSUs"), stock options, and the Company's Employee Stock Purchase Plan ("ESPP").

Certain PSUs granted to senior management during the six months ended June 30, 2024, will vest subject to the achievement of pre-established financial performance targets for the year ending December 31, 2024, and continued service. The fair value of these PSUs is based on the closing price of the Company's common stock on the date of grant. Stock-based compensation costs associated with these PSUs are recognized over the requisite service period of 4.25 years using graded vesting which results in more accelerated expense recognition compared to traditional time-based vesting over the same vesting period. Each reporting period, the Company monitors the probability of achieving the performance targets and may adjust periodic stock-based compensation expense based on its determination of the likelihood of achieving these performance targets and the estimated number of shares of common stock that will vest. The actual number of PSUs awarded is based on the actual performance during the performance period compared to the performance targets.

The following table sets forth the stock-based compensation expense included in the Company's condensed consolidated statements of operations for the three and six months ended June 30, 2024 and 2023 (in thousands):

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	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Cost of revenue	$ 981	$ 1,281	$ 2,175	$ 2,472
Research and development	1,746	2,431	3,914	4,709
Sales, general and administrative	6,833	9,111	17,040	18,408
Total	$ 9,560	$ 12,823	$ 23,129	$ 25,589

As of June 30, 2024, total unrecognized compensation cost related to unvested share-based compensation arrangements, excluding PSUs, was $ 52.9 million, which is expected to be recognized over a weighted average period of 2.5 years.

As of June 30, 2024, total unrecognized compensation cost related to unvested PSU share-based compensation arrangements was $ 14.4 million, which is expected to be recognized over a weighted average period of 3.0 years.

The total stock-based compensation cost capitalized in inventory was $ 1.2 million and $1.3 million as of June 30, 2024 and December 31, 2023, respectively.

10. Accumulated Other Comprehensive (Loss) Income

Other comprehensive (loss) income consists of two components: unrealized gains or losses on the Company's available-for-sale marketable investments, non-marketable investments, and gains or losses from foreign currency translation adjustments. Until realized and reported as a component of consolidated net (loss) income, these comprehensive (loss) income items accumulate and are included within accumulated other comprehensive (loss) income. Unrealized gains and losses on our marketable investments are reclassified from accumulated other comprehensive (loss) income into earnings when realized upon sale, and are determined based on specific identification of securities sold. Gains and losses from the translation of assets and liabilities denominated in non-U.S. dollar functional currencies are included in accumulated other comprehensive (loss) income.

The following table summarizes the changes in the accumulated balances during the period, and includes information regarding the manner in which the reclassifications out of accumulated other comprehensive (loss) income into earnings affect our condensed consolidated statements of comprehensive income (loss) (in thousands):

	Three Months Ended June 30, 2024				Three Months Ended June 30, 2023			
	Marketable Investments	Non-Marketable Investments	Currency Translation Adjustments	Total	Marketable Investments	Non-Marketable Investments	Currency Translation Adjustments	Total
Balance, beginning of the period	$ (392)	$ —	$ (4,446)	$ (4,838)	$ (2,640)	$ —	$ (4,221)	$ (6,861)
Other comprehensive loss before reclassifications:								
Unrealized gains — investments	145	96	—	241	628	—	—	628
Foreign currency translation (losses) gains	—	—	(451)	(451)	—	—	654	654
Income tax effect — expense	—	—	—	—	—	—	—	—
Net of tax	145	96	(451)	(210)	628	—	654	1,282
Net current-year other comprehensive (loss) income	145	96	(451)	(210)	628	—	654	1,282
Balance, end of the period	$ (247)	$ 96	$ (4,897)	$ (5,048)	$ (2,012)	$ —	$ (3,567)	$ (5,579)

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	Six Months Ended June 30, 2024				Six Months Ended June 30, 2023			
	Marketable Investments	Non-Marketable Investments	Currency Translation Adjustments	Total	Marketable Investments	Non-Marketable Investments	Currency Translation Adjustments	Total
Balance, beginning of the period	$ (558)	$ —	$ (2,593)	$ (3,151)	$ (3,500)	$ —	$ (4,624)	$ (8,124)
Other comprehensive loss before reclassifications:								
Unrealized (loss) gain — investments	311	96	—	407	1,488	—	—	1,488
Foreign currency translation (losses) gains	—	—	(2,308)	(2,308)	—	—	1,057	1,057
Income tax effect — expense	—	—	4	4	—	—	—	—
Net of tax	311	96	(2,304)	(1,897)	1,488	—	1,057	2,545
Net current-year other comprehensive (loss) income	311	96	(2,304)	(1,897)	1,488	—	1,057	2,545
Balance, end of the period	$ (247)	$ 96	$ (4,897)	$ (5,048)	$ (2,012)	$ —	$ (3,567)	$ (5,579)

11. Income Taxes

The Company's income tax expense (benefit), deferred tax assets and liabilities, and reserves for unrecognized tax benefits reflect management's best assessment of estimated current and future taxes to be paid. The Company is subject to income taxes in both the United States and foreign jurisdictions. Significant judgment and estimates are required in determining the consolidated income tax expense (benefit).

During interim periods, the Company generally utilizes the estimated annual effective tax rate ("AETR") method which involves the use of forecasted information. Under the AETR method, the provision is calculated by applying the estimated AETR for the full fiscal year to "ordinary" income or loss (pretax income or loss excluding unusual or infrequently occurring discrete items) for the reporting period. Jurisdictions with tax assets for which the Company believes a tax benefit cannot be realized are excluded from the computation of its AETR.

During the three months ended June 30, 2024, the Company recorded a pre-tax impairment charge of $76.9 million for finite-lived intangible assets, property and equipment, and another $33.4 million charge to cost of revenue. Refer to Note "4. Impairment of Immersive Healthcare Asset Group" for more information. According to ASC 740-270-30-8 guidance for significant unusual or infrequently occurring items that are separately reported, the $26.5 million income tax benefit as a result of the impairment charge was excluded from the calculation of the Company's estimated annual effective tax rate.

The Company's benefit from income taxes was $17.7 million and $14.1 million for the three and six months ended June 30, 2024, respectively, which was primarily due to tax expenses attributable to its worldwide profits offset by a discrete tax benefit from the impairment charge related to the immersive healthcare asset group. The Company's provision for income taxes was $0.6 million and $0.7 million for the three and six months ended June 30, 2023, respectively, which was primarily due to tax expenses attributable to its worldwide profits offset by excess tax benefits from stock-based compensation attributable to its U.S. jurisdiction.

The Company's effective tax rate changed to 22.7% for the three months ended June 30, 2024, from 2.9% for the three months ended June 30, 2023, and to 22.2% for the six months ended June 30, 2024, compared to 2.4% for the six months ended June 30, 2023, which were primarily due to decrease in excess tax benefits from stock-based compensation attributable to its U.S. jurisdiction for the three and six months in 2024.

Significant domestic deferred tax assets ("DTAs") were generated in recent years, primarily due to excess tax benefits from stock option exercises and vesting of restricted stock units. The Company evaluates all available positive and negative evidence, objective and subjective in nature, in each reporting period to determine if sufficient taxable income will be generated to realize the benefits of its DTAs and, if not, a valuation allowance to reduce the DTAs is recorded. As of June 30, 2024, the Company maintains a valuation allowance primarily against its California R&D tax credit DTAs for which the Company does not believe a tax benefit is more likely than not to be realized due to the computation of California taxes under the single sales factor and non-conformity of the Section 174 capitalization rule.

The Company maintains that all foreign earnings, with the exception of a portion of the earnings of its German subsidiary, are permanently reinvested outside the United States and therefore deferred taxes attributable to such earnings are not provided for in the Company's condensed consolidated financial statements as of June 30, 2024.

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12. Net (Loss) Income per Share

The Company computed basic net (loss) income per share based on the weighted average number of shares of common stock outstanding during the period. The Company computed diluted net (loss) income per share based on the weighted average number of shares of common stock outstanding plus potentially dilutive common stock equivalents outstanding during the period. For the purposes of this calculation, stock options, restricted stock units, performance stock units, and stock sold through the ESPP are considered common stock equivalents.

A reconciliation of the numerator and denominator used in the calculation of the basic and diluted net (loss) income per share is as follows (in thousands, except share and per share amounts):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Numerator:				
Net (loss) income	$ (60,200)	$ 18,960	$ (49,198)	$ 27,522
Denominator:				
Weighted average shares used to compute net (loss) income attributable to common stockholders:				
Basic	38,793,341	38,320,999	38,755,337	38,254,042
Potential dilutive stock-based options and awards	—	880,156	—	897,370
Diluted	38,793,341	39,201,155	38,755,337	39,151,412
Net (loss) income per share:				
Basic	$ (1.55)	$ 0.49	$ (1.27)	$ 0.72
Diluted	$ (1.55)	$ 0.48	$ (1.27)	$ 0.70

For the three months ended June 30, 2024 and 2023, outstanding stock-based awards of 1,131 thousand and 8 thousand shares, respectively, and for the six months ended June 30, 2024 and 2023 outstanding stock-based awards of 1,215 thousand and 8 thousand shares, respectively, were excluded from the computation of diluted net (loss) income per share because their effect would have been anti-dilutive in the periods presented.

13. Interest and other income (expense), net

The following table shows the components of interest and other income (expense), net for the three and six months ended June 30, 2024 and 2023 and (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Interest income	$ 3,657	$ 1,283	$ 6,950	$ 2,253
Interest expense	(344)	(444)	(746)	(860)
Other (expense) income, net[1]	(226)	808	(592)	898
Interest and other income, net	$ 3,087	$ 1,647	$ 5,612	$ 2,291

[1]Consists primarily of the effects of foreign currency gains or losses.

14. Revenues

Revenue Recognition

Revenue is recognized in an amount that reflects the consideration the Company expects to be entitled to in exchange for goods or services. All revenue recognized in the condensed consolidated statements of operations is considered to be revenue from contracts with customers.

Certain changes in presentation were made to the Company's revenues disaggregated by product categories for the period ended June 30, 2023 to conform to the presentation for the period ended June 30, 2024. During the year ended December 31, 2023, the Company made changes to its product categories to provide investors with more meaningful information to understand the performance of its business and strategic direction.

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The Company's revenues disaggregated by geography, based on the destination to which the Company ships its products, for the three and six months ended June 30, 2024 and 2023 was as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
United States	$ 218,180	$ 186,772	$ 427,824	$ 358,651
International	81,223	74,727	150,234	144,246
Total	$ 299,403	$ 261,499	$ 578,058	$ 502,897

The Company's revenues disaggregated by product category for the three and six months ended June 30, 2024 and 2023 was as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Thrombectomy	$ 203,502	$ 162,503	$ 391,205	$ 307,483
Embolization and Access	95,901	98,996	186,853	195,414
Total	$ 299,403	$ 261,499	$ 578,058	$ 502,897

Performance Obligations

Delivery of products - The Company's contracts with customers, other than the China licensing arrangements described below, typically contain a single performance obligation, delivery of the Company's products. Satisfaction of that performance obligation occurs when control of the promised goods transfers to the customer, which is generally upon shipment or receipt by customer for non-consignment sale agreements and upon utilization for consignment sale agreements.

Payment terms - The Company's payment terms vary by the type and location of our customer. The timing between fulfillment of performance obligations and when payment is due is not significant and does not give rise to financing transactions. The Company did not have any contracts with significant financing components as of June 30, 2024 and 2023.

Product returns - The Company may allow customers to return products purchased at the Company's discretion. The Company estimates the amount of its product sales that may be returned by its customers and records this estimate as a reduction of revenue in the period in which the related product revenue is recognized. The Company currently estimates product return liabilities using its own historic sales information, trends, industry data, and other relevant data points.

Warranties - The Company offers its standard warranty to all customers and it is not available for sale on a standalone basis. The Company's standard warranty represents its guarantee that its products function as intended, are free from defects, and comply with agreed-upon specifications and quality standards. This assurance does not constitute a service and is not a separate performance obligation.

Transaction Price

Revenue is recorded at the net sales price, which includes estimates of variable consideration such as product returns utilizing historical return rates, rebates, discounts, and other adjustments to net revenue. To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration that should be included in the transaction price. When determining if variable consideration should be constrained, management considers whether there are factors that could result in a significant reversal of revenue and the likelihood of a potential reversal. Variable consideration is included in revenue only to the extent that it is probable that a significant reversal of the revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. These estimates are reassessed each reporting period as required. During the three and six months ended June 30, 2024 and 2023, the Company made no material changes in estimates for variable consideration. When the Company performs shipping and handling activities after control of goods is transferred to the customer, they are considered as fulfillment activities, and costs are accrued for when the related revenue is recognized. Taxes collected from customers relating to product sales and remitted to governmental authorities are excluded from revenues.

Contract assets and liabilities

The following information summarizes the Company's contract assets and liabilities (in thousands):

	June 30, 2024	December 31, 2023
Contract assets	$ 18,000	$ 18,000
Contract liabilities	$ 3,660	$ 6,496

Contract assets for the periods presented primarily represent the difference between the revenue that was recognized based on the relative standalone selling price of the related performance obligations satisfied and the contractual billing terms in the licensing arrangements.

Contract liabilities represents amounts that the Company has already invoiced and are ultimately expected to be recognized as revenue, but for which not all revenue recognition criteria have been met and is recognized as the associated performance obligations are satisfied. Revenue recognized during the three and six months ended June 30, 2024 relating to contract liabilities as of March 31, 2024 and December 31, 2023 was $3.6 million and $2.8 million, respectively.

China Distribution and Technology Licensing Agreement

In December 2020, the Company entered into a distribution and technology licensing arrangement with its existing distribution partner in China. In addition to modifying the Company's standard distribution agreement with its partner in China, the Company agreed to license the technology for certain products to its partner in China to permit the manufacturing and commercialization of such products in China as well as provide certain regulatory support. During the three months ended March 31, 2022, the Company further amended the distribution agreement and entered into an additional license arrangement, pursuant to which the Company agreed to license the technology for additional products to its partner in China on substantially the same terms as the existing license arrangement. Apart from the standard distribution agreement, the Company will receive fixed payments upon transferring its distinct licensed technology and providing related regulatory support. During the three months ended September 30, 2023, the Company entered into an additional licensing arrangement, pursuant to which the Company agreed to license the technology for additional products to its partner in China and will receive fixed payments upon transferring its distinct licensed technology and providing related regulatory support and royalty payments on the down-stream sale of the licensed products. During the three months ended March 31, 2024, the Company entered into another licensing agreement, pursuant to which the Company agreed to license the technology for additional products to its partner in China and will receive fixed payments upon transferring its distinct licensed technology and providing related regulatory support.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the unaudited condensed consolidated financial statements and the related notes thereto included elsewhere in this Quarterly Report on Form 10-Q and the audited consolidated financial statements and notes thereto and management's discussion and analysis of financial condition and results of operations for the year ended December 31, 2023, included in our Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on February 22, 2024.

This Quarterly Report on Form 10-Q contains "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). In some cases, you can identify these statements by forward-looking words such as "may," "will," "expect," "believe," "anticipate," "intend," "could," "should," "estimate," or "continue," and similar expressions or variations, but these words are not the exclusive means for identifying such statements. Such forward-looking statements are subject to risks, uncertainties and other factors that could cause actual results and the timing of certain events to differ materially from future results and timing expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified below, and those discussed in the section titled "Risk Factors" in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2023. The forward-looking statements in this Quarterly Report on Form 10-Q represent our views as of the date of this Quarterly Report on Form 10-Q. Except as may be required by law, we assume no obligation to update these forward-looking statements or the reasons that results could differ from these forward-looking statements. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this Quarterly Report on Form 10-Q.

Overview

References herein to "we," "us," "our," the "Company," and "Penumbra," refer to Penumbra, Inc. and its consolidated subsidiaries unless expressly indicated or the context requires otherwise.

Penumbra is a global healthcare company focused on innovative therapies. We design, develop, manufacture and market novel products and have a broad portfolio that addresses challenging medical conditions in markets with significant unmet need. Our team focuses on developing, manufacturing and marketing novel products for use by specialist physicians and healthcare providers to drive improved clinical and health outcomes. We believe that the cost-effectiveness of our products is attractive to our customers.

Since our founding in 2004, we have invested heavily in our product development and commercial expansion that has established the foundation of our global organization. We have successfully developed, obtained regulatory clearance or approval for, and introduced products into the thrombectomy market since 2007, access market since 2008, embolization market since 2011, neurosurgical market since 2014, and immersive healthcare market since 2020.

We expect to continue to develop and build our portfolio of products, including our thrombectomy, embolization and access technologies, while iterating on our currently available products. Generally, when we introduce a next generation product or a new product designed to replace a current product, sales of the earlier generation product or the product replaced decline. Our research and development activities are centered around the development of new products and clinical activities designed to support our regulatory submissions and demonstrate the effectiveness of our products.

During the three months ended June 30, 2024, we made the strategic decision to explore alternative avenues for our Immersive Healthcare business, and as a result we recorded an impairment charge of $110.3 million related to our immersive healthcare asset group. Refer to Note "4. Impairment of Immersive Healthcare Asset Group" to our condensed consolidated financial statements in Part I, Item 1 of this Form 10-Q for more details.

To address the challenging and significant clinical needs of our key markets, we have developed products that fall into the following broad product families:

Our thrombectomy products fall into two broad product families:

- Peripheral thrombectomy - INDIGO System, including Lightning, Bolt and CAT RX, designed for continuous or modulated aspiration, computer-assisted vacuum thrombectomy, including aspiration catheters, microprocessor-controlled software algorithms that orchestrate the interaction of our pump and catheters, separators, aspiration pump and accessories, including delivery catheters used in peripheral thrombectomy procedures
- Neuro thrombectomy - Penumbra System, including Penumbra RED, JET, ACE, BMX, and MAX catheters and the 3D Revascularization Device, Penumbra ENGINE and other components and accessories

Our embolization and access products fall into four broad product families:

- Peripheral embolization - RUBY Coil System, Ruby LP, LANTERN Delivery Microcatheter and the POD System (POD and POD Packing Coil)
- Neuro embolization - Penumbra SMART COIL, Penumbra Coil 400, POD400, PAC400 and SwiftPAC Coil
- Access - delivery catheters, consisting of Neuron, Neuron MAX Select, BENCHMARK, BMX, DDC, PX SLIM, SENDit and MidWay
- Neurosurgical - Artemis Neuro Evacuation Device

Our immersive healthcare products fall into one broad product family:

- REAL Immersive System - portfolio of products that leverages immersive computer-based technologies to deliver engaging, immersive therapeutics to promote better health, motor function and cognition

We support healthcare providers, hospitals and clinics in more than 100 countries. In the six months ended June 30, 2024 and 2023, 26.0% and 28.7% of our revenue, respectively, was generated from customers located outside of the United States. Our sales outside of the United States are denominated principally in the euro, with some sales being denominated in other currencies. As a result, we have foreign exchange exposure but do not currently engage in hedging.

We generated revenue of $578.1 million and $502.9 million for the six months ended June 30, 2024 and 2023, respectively, an increase of $75.2 million. We generated loss from operations of $68.9 million and income from operations of $25.9 million for the six months ended June 30, 2024 and 2023, respectively.

Factors Affecting Our Performance

There are a number of factors that have impacted, and we believe will continue to impact, our results of operations and growth. These factors include:

- The rate at which we grow our salesforce and the speed at which newly hired salespeople become fully effective can impact our revenue growth or our costs incurred in anticipation of such growth.
- Our industry is intensely competitive and, in particular, we compete with a number of large, well-capitalized companies. We must continue to successfully compete in light of our competitors' existing and future products and their resources to successfully market to the specialist physicians who use our products.
- We must continue to successfully introduce new products that gain acceptance with specialist physicians and other healthcare providers and successfully transition from existing products to new products, ensuring adequate supply. In addition, as we introduce new products and expand our production capacity, we anticipate additional personnel will be hired and trained to build our inventory of components and finished goods in advance of sales, which may cause quarterly fluctuations in our operating results and financial condition.
- Publications of clinical results by us, our competitors and other third parties can have a significant influence on whether, and the degree to which, our products are used by specialist physicians and the procedures and treatments those physicians choose to administer for a given condition.
- The specialist physicians who use our interventional products may not perform procedures during certain times of the year, such as those periods when they are at major medical conferences or are away from their practices for other reasons, the timing of which occurs irregularly during the year and from year to year.
- Most of our sales outside of the United States are denominated in the local currency of the country in which we sell our products. As a result, our revenue from international sales can be significantly impacted by fluctuations in foreign currency exchange rates.
- The availability and levels of reimbursement within the relevant healthcare payment system for healthcare providers for procedures in which our products are used.

In addition, we have experienced and expect to continue to experience meaningful variability in our quarterly revenue, gross profit and gross margin percentage as a result of a number of factors, including, but not limited to: the number of available selling days, which can be impacted by holidays; the mix of products sold; the geographic mix of where products are sold; the demand for our products and the products of our competitors; the timing of or failure to obtain regulatory approvals or clearances for products; increased competition; the timing of customer orders; inventory or other asset write-offs or write-downs; costs, benefits and timing of new product introductions; costs, benefits and timing of the acquisition and integration of businesses and product lines we may acquire; the availability and cost of components and raw materials; and fluctuations in foreign currency exchange rates. We may experience quarters in which we have significant revenue growth sequentially followed by quarters of moderate or no revenue growth. Additionally, we may experience quarters in which operating expenses, in particular research and development expenses, fluctuate depending on the stage and timing of product development.

Components of Results of Operations

Revenue. We sell our interventional products directly to hospitals and other healthcare providers and through distributors for use in procedures performed by specialist physicians to treat patients in two key markets: thrombectomy and embolization and access. We sell our products through purchase orders, and we do not have long term purchase commitments from our customers. Revenue from product sales is recognized either on the date of shipment or the date of receipt by the customer, but is deferred for certain transactions when control has not yet transferred. With respect to products that we consign to hospitals, which primarily consist of coils, we recognize revenue at the time hospitals utilize products in a procedure. Revenue also includes shipping and handling costs that we charge to customers.

Cost of Revenue. Cost of revenue consists primarily of the cost of raw materials and components, personnel costs, including stock-based compensation, inbound freight charges, receiving costs, inspection and testing costs, warehousing costs, royalty expense, shipping and handling costs, and other labor and overhead costs incurred in the manufacturing of products. We manufacture substantially all of our products in our manufacturing facilities in Alameda and Roseville, California.

Operating Expenses

Research and Development ("R&D"). R&D expenses primarily consist of product development, clinical and regulatory expenses, materials, depreciation and other costs associated with the development of our products. R&D expenses also include salaries, benefits and other related costs, including stock-based compensation, for personnel and consultants. We expense R&D costs as they are incurred.

Sales, General and Administrative ("SG&A"). SG&A expenses primarily consist of salaries, benefits and other related costs, including stock-based compensation, for personnel and consultants engaged in sales, marketing, finance, legal, compliance, administrative, facilities and information technology and human resource activities. Our SG&A expenses also include marketing trials, medical education, training, commissions, generally based on sales, to direct sales representatives, amortization of acquired intangible assets and acquisition-related costs.

Income Taxes

We are taxed at the rates applicable within each jurisdiction in which we operate. The composite income tax rate, tax provisions, deferred tax assets ("DTAs") and deferred tax liabilities will vary according to the jurisdiction in which profits arise. Tax laws are complex and subject to different interpretations by management and the respective governmental taxing authorities, and require us to exercise judgment in determining our income tax provision, our deferred tax assets and deferred tax liabilities and the potential valuation allowance recorded against our net DTAs. Deferred tax assets and liabilities are determined using the enacted tax rates in effect for the years in which those tax assets are expected to be realized. A valuation allowance is established when it is more likely than not that the future realization of all or some of the DTAs will not be achieved.

Non-GAAP Financial Measures

In addition to financial measures prepared in accordance with U.S. generally accepted accounting principles ("GAAP"), the Company uses non-GAAP financial measures such as non-GAAP cost of revenue, non-GAAP gross profit and non-GAAP gross margin. Our management believes the non-GAAP financial measures disclosed are useful to investors in assessing the operating performance of our business and provide meaningful comparisons to prior periods and thus a more complete understanding of our business than could be obtained absent this disclosure. We consider non-GAAP cost of revenue, non-GAAP gross profit and non-GAAP gross margin useful metrics to investors as they eliminate the impact of non-cash inventory charges related to the impairment of our immersive healthcare asset group and allow a more direct comparison of our business performance between periods.

The non-GAAP financial measures included may not be comparable to, similarly titled measures used by other companies. These non-GAAP measures should not be considered in isolation or as alternatives to GAAP measures. We urge investors to review the reconciliation of these non-GAAP financial measures to the most comparable GAAP financial measures set forth below and not to rely on any single financial measure to evaluate our business.

Results of Operations

The following table sets forth the components of our condensed consolidated statements of operations in dollars and as a percentage of revenue for the periods presented:

	Three Months Ended June 30,				Six Months Ended June 30,			
	2024		2023		2024		2023	
	(in thousands, except for percentages)				(in thousands, except for percentages)			
Revenue	$ 299,403	100.0 %	$ 261,499	100.0 %	$ 578,058	100.0 %	$ 502,897	100.0 %
Cost of revenue	136,574	45.6	94,638	36.2	234,090	40.5	184,964	36.8
Gross profit	162,829	54.4	166,861	63.8	343,968	59.5	317,933	63.2
Operating expenses:								
Research and development	24,942	8.3	21,537	8.2	49,568	8.6	41,523	8.3
Sales, general and administrative	141,903	47.4	127,435	48.7	286,315	49.5	250,513	49.8
Impairment charge	76,945	25.7	—	—	76,945	13.3	—	—
Total operating expenses	243,790	81.4	148,972	57.0	412,828	71.4	292,036	58.1
(Loss) income from operations	(80,961)	(27.0)	17,889	6.8	(68,860)	(11.9)	25,897	5.1
Interest and other income, net	3,087	1.0	1,647	0.6	5,612	1.0	2,291	0.5
(Loss) income before income taxes	(77,874)	(26.0)	19,536	7.5	(63,248)	(10.9)	28,188	5.6
(Benefit from) provision for income taxes	(17,674)	(5.9)	576	0.2	(14,050)	(2.4)	666	0.1
Net (loss) income	$ (60,200)	(20.1) %	$ 18,960	7.3 %	$ (49,198)	(8.5) %	$ 27,522	5.5 %

Three Months Ended June 30, 2024 Compared to the Three Months Ended June 30, 2023

Certain changes in presentation were made to the Company's revenues disaggregated by product categories for the period ended June 30, 2023 to conform to the presentation for the period ended June 30, 2024. During the year ended December 31, 2023, the Company made changes to its product categories to provide investors with more meaningful information to understand the performance of its business and strategic direction.

Revenue

	Three Months Ended June 30,		Change	
	2024	2023	$	%
	(in thousands, except for percentages)			
Thrombectomy	$ 203,502	$ 162,503	$ 40,999	25.2 %
Embolization and Access	95,901	98,996	(3,095)	(3.1)%
Total	$ 299,403	$ 261,499	$ 37,904	14.5 %

Revenue increased $37.9 million, or 14.5%, to $299.4 million in the three months ended June 30, 2024, from $261.5 million in the three months ended June 30, 2023. Overall revenue growth was primarily due to an increase in sales of our new and existing thrombectomy products.

Revenue from our global thrombectomy products increased $41.0 million, or 25.2%, to $203.5 million in the three months ended June 30, 2024, from $162.5 million in the three months ended June 30, 2023. The increase in our global thrombectomy products was primarily attributable to higher sales volume in the United States as a result of sales of new products and further market penetration of our existing products. This increase was driven by sales of our U.S.

thrombectomy products, which increased by 24.9% in the three months ended June 30, 2024. Prices for our thrombectomy products remained substantially unchanged during the period.

Revenue from our global embolization and access products decreased $3.1 million, or 3.1%, to $95.9 million in the three months ended June 30, 2024, from $99.0 million in the three months ended June 30, 2023. The decrease in our global

embolization and access products was primarily driven by our international embolization and access products, which decreased by 10.8% in the three months ended June 30, 2024. Prices for our embolization and access products remained substantially unchanged during the period.

Revenue by Geographic Area

The following table presents revenue by geographic area, based on our customers' shipping destinations, for the three months ended June 30, 2024 and 2023:

	Three Months Ended June 30,				Change	
	2024		2023		$	%
	(in thousands, except for percentages)					
United States	$ 218,180	72.9 %	$ 186,772	71.4 %	$ 31,408	16.8 %
International	81,223	27.1 %	74,727	28.6 %	6,496	8.7 %
Total	$ 299,403	100.0 %	$ 261,499	100.0 %	$ 37,904	14.5 %

Revenue from product sales in international markets increased $6.5 million, or 8.7%, to $81.2 million in the three months ended June 30, 2024, from $74.7 million in the three months ended June 30, 2023. Revenue from international sales represented 27.1% and 28.6% of our total revenue for the three months ended June 30, 2024 and 2023, respectively.

Gross Margin

The following table presents a reconciliation of the Company's GAAP cost of revenue, GAAP gross profit and GAAP gross margin to non-GAAP cost of revenue, non-GAAP gross profit and non-GAAP gross margin[1] for the three months ended June 30, 2024:

	Three Months Ended June 30,		Change	
	2024	2023	$	%
	(in thousands, except for percentages)			
GAAP cost of revenue	$ 136,574	$ 94,638	$ 41,936	44.3 %
GAAP cost of revenue includes the effect of the following item:				
Inventory impairment charge[2]	33,359	—	33,359	100 %
Non-GAAP cost of revenue	$ 103,215	$ 94,638	$ 8,577	9.1 %
GAAP gross profit	$ 162,829	$ 166,861	$ (4,032)	(2.4)%
GAAP gross profit includes the effect of the following item:				
Inventory impairment charge[2]	33,359	—	33,359	100.0 %
Non-GAAP gross profit	$ 196,188	$ 166,861	$ 29,327	17.6 %
GAAP gross margin	54.4 %	63.8 %		
Non-GAAP gross margin	65.5 %	63.8 %		

[1]See "Non-GAAP Financial Measures" for important information about our use of non-GAAP measures.

[2]Represents a charge of $33.4 million to cost of revenue in connection with an inventory write-down to net realizable value due to the immersive healthcare asset group impairment during the three months ended June 30, 2024. See Note "4. Impairment of Immersive Healthcare Asset Group" to our condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information.

Gross margin was 54.4% in the three months ended June 30, 2024, including a $33.4 million inventory impairment charge to cost of revenue in connection with the impairment of our immersive healthcare asset group, which compares to 63.8% in the three months ended June 30, 2023. Excluding the $33.4 million charge, non-GAAP gross margin increased by 1.7% percentage points to 65.5% in the three months ended June 30, 2024 compared to GAAP and non-GAAP gross margin of 63.8% in the three months ended June 30, 2023.

Gross margin is impacted by product mix, regional mix, and production initiatives to support demand and create future efficiencies. As such, with favorable product mix, improvement in productivity, and by leveraging our fixed costs on higher volume of new product sales during the year, our gross margin may be positively impacted in the future.

Research and Development ("R&D")

	Three Months Ended June 30,		Change	
	2024	2023	$	%
	(in thousands, except for percentages)			
R&D	$ 24,942	$ 21,537	$ 3,405	15.8 %
R&D as a percentage of revenue	*8.3 %*	*8.2 %*		

R&D expenses increased by $3.4 million, or 15.8%, to $24.9 million in the three months ended June 30, 2024, from $21.5 million in the three months ended June 30, 2023. The increase was primarily due to a $1.3 million increase in product development and testing costs and a $1.1 million increase in personnel-related expenses driven by an increase in headcount and related expenses to support our growth.

We have continued to make investments, and plan to continue to make investments, in the development of our products. As part of our ongoing investment in the development of our products, we may incur additional expenses related to research and development milestones. In addition, we have experienced in the past, and may continue to experience in the future, variability in expenses incurred due to the timing and costs of clinical trials and product development, which may include additional personnel-related expenses in conjunction with the launch of new products.

Sales, General and Administrative ("SG&A")

	Three Months Ended June 30,		Change	
	2024	2023	$	%
	(in thousands, except for percentages)			
SG&A	$ 141,903	$ 127,435	$ 14,468	11.4 %
SG&A as a percentage of revenue	*47.4 %*	*48.7 %*		

SG&A expenses increased by $14.5 million, or 11.4%, to $141.9 million in the three months ended June 30, 2024, from $127.4 million in the three months ended June 30, 2023. The increase was primarily due to a $7.3 million increase in personnel-related expenses driven by an increase in headcount and related expenses to support our growth, a $3.4 million increase in other professional services, and a $3.0 million increase in costs related to marketing events.

As we continue to invest in our growth, we have expanded and may continue to expand our sales, marketing, and general and administrative teams through the hiring of additional employees in critical roles that support our strategic initiatives. In addition, we have experienced in the past, and may continue to experience in the future, variability in expenses incurred due to the timing and costs of investments to support the business.

Impairment Charge

	Three Months Ended June 30,		Change	
	2024	2023	$	%
	(in thousands, except for percentages)			
Impairment Charge	$ 76,945	$ —	$ 76,945	100.0 %
Impairment Charge as a percentage of revenue	*25.7 %*	*— %*		

During the three months ended June 30, 2024, we recorded a $76.9 million impairment charge which was comprised of $58.9 million in finite lived intangible assets and $18.0 million in property and equipment, respectively in connection with the impairment of our immersive healthcare asset group. See Note "4. Impairment of Immersive Healthcare Asset Group" to our condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information.

(Benefit from) provision for income taxes

	Three Months Ended June 30,		Change	
	2024	2023	$	%
	(in thousands, except for percentages)			
(Benefit from) provision for income taxes	$ (17,674)	$ 576	$ (18,250)	(3,168.4)%
Effective tax rate	*22.7 %*	*2.9 %*		

Our benefit from income taxes was $17.7 million for the three months ended June 30, 2024, which was primarily due to tax expenses attributable to our worldwide profits offset by a discrete tax benefit attributable to the impairment charge related to our immersive healthcare asset group. Our provision for income taxes was $0.6 million for the three months ended June 30, 2023, which was primarily due to tax expenses attributable to our worldwide profits offset by excess tax benefits from stock-based compensation attributable to our U.S. jurisdiction.

Our effective tax rate changed to 22.7% for the three months ended June 30, 2024, from 2.9% for the three months ended June 30, 2023, primarily due to decrease in excess tax benefits from stock-based compensation attributable to our U.S. jurisdiction in 2024.

Prospectively, our effective tax rate will likely be driven by (1) permanent differences in taxable income for tax and financial reporting purposes, (2) tax expense or benefit attributable to our worldwide financial result, and (3) discrete tax adjustments such as excess tax benefits or deficiencies related to stock-based compensation. Our income tax provision is subject to volatility as the amount of excess tax benefits or deficiencies can fluctuate from period to period based on the price of our stock, the volume of share-based grants settled or vested, and the fair value assigned to equity awards under U.S. GAAP. In addition, changes in tax law or our interpretation thereof, and changes to our valuation allowance could result in fluctuations in our effective tax rate.

Six Months Ended June 30, 2024 Compared to the Six Months Ended June 30, 2023

Revenue

	Six Months Ended June 30,		Change	
	2024	2023	$	%
	(in thousands, except for percentages)			
Thrombectomy	$ 391,205	$ 307,483	$ 83,722	27.2 %
Embolization and Access	186,853	195,414	(8,561)	(4.4)%
Total	$ 578,058	$ 502,897	$ 75,161	14.9 %

Revenue increased $75.2 million, or 14.9%, to $578.1 million in the six months ended June 30, 2024, from $502.9 million in the six months ended June 30, 2023. Overall revenue growth was primarily due to an increase in sales of our new and existing thrombectomy products.

Revenue from our global thrombectomy products increased $83.7 million, or 27.2%, to $391.2 million in the six months ended June 30, 2024, from $307.5 million in the six months ended June 30, 2023. The increase in our global thrombectomy products was primarily attributable to higher sales volume in the United States as a result of sales of new products and further market penetration of our existing products. This increase was driven by sales of our U.S. thrombectomy products, which increased by 29.8% in the six months ended June 30, 2024. Prices for our thrombectomy products remained substantially unchanged during the period.

Revenue from our global embolization and access products decreased $8.6 million, or 4.4%, to $186.9 million in the six months ended June 30, 2024, from $195.4 million in the six months ended June 30, 2023. The decrease in our global embolization and access products was primarily driven by our international embolization and access products, which decreased by 11.2% in the six months ended June 30, 2024. Prices for our embolization and access products remained substantially unchanged during the period.

Revenue by Geographic Area

The following table presents revenue by geographic area, based on our customer's shipping destination, for the six months ended June 30, 2024 and 2023:

	Six Months Ended June 30,				Change	
	2024		2023		$	%
	(in thousands, except for percentages)					
United States	$ 427,824	74.0 %	$ 358,651	71.3 %	$ 69,173	19.3 %
International	150,234	26.0 %	144,246	28.7 %	5,988	4.2 %
Total	$ 578,058	100.0 %	$ 502,897	100.0 %	$ 75,161	14.9 %

Revenue from sales in international markets increased $6.0 million, or 4.2%, to $150.2 million in the six months ended June 30, 2024, from $144.2 million in the six months ended June 30, 2023. Revenue from international sales represented 26.0% and 28.7% of our total revenue for the six months ended June 30, 2024 and 2023, respectively.

Gross Margin

The following table presents a reconciliation of the Company's GAAP cost of revenue, GAAP gross profit and GAAP gross margin to non-GAAP cost of revenue, non-GAAP gross profit and non-GAAP gross margin[1] for the six months ended June 30, 2024 and 2023:

	Six Months Ended June 30,		Change	
	2024	2023	$	%
	(in thousands, except for percentages)			
GAAP cost of revenue	$ 234,090	$ 184,964	$ 49,126	26.6 %
GAAP cost of revenue includes the effect of the following item:				
Inventory impairment charge[2]	33,359	—	33,359	100 %
Non-GAAP cost of revenue	$ 200,731	$ 184,964	$ 15,767	8.5 %
GAAP gross profit	$ 343,968	$ 317,933	$ 26,035	8.2 %
GAAP gross profit includes the effect of the following item:				
Inventory impairment charge[2]	33,359	—	33,359	100 %
Non-GAAP gross profit	$ 377,327	$ 317,933	$ 59,394	18.7 %
GAAP gross margin	59.5 %	63.2 %		
Non-GAAP gross margin	65.3 %	63.2 %		

[1]See "Non-GAAP Financial Measures" for important information about our use of non-GAAP measures.

[2]Represents a charge of $33.4 million to cost of revenue in connection with an inventory write-down to net realizable value due to the immersive healthcare asset group impairment during the three months ended June 30, 2024. See Note "4. Impairment of Immersive Healthcare Asset Group" to our condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information.

Gross margin was 59.5% in the six months ended June 30, 2024, including a $33.4 million inventory impairment charge to cost of revenue in connection with the impairment of our immersive healthcare asset group, which compares to 63.2% in the six months ended June 30, 2023. Excluding the $33.4 million charge, non-GAAP gross margin increased by 2.1% percentage points to 65.3% in the six months ended June 30, 2024 compared to GAAP and non-GAAP gross margin of 63.2% in the six months ended June 30, 2023.

Gross margin is impacted by product mix, regional mix, start-up costs associated with new product launches, and production initiatives to support demand and create future efficiencies. As such, with favorable product mix, improvement in productivity, and by leveraging our fixed costs on higher volume of new product sales during the year, our gross margin may be positively impacted in the future.

Research and Development ("R&D")

	Six Months Ended June 30,		Change	
	2024	2023	$	%
	(in thousands, except for percentages)			
R&D	$ 49,568	$ 41,523	$ 8,045	19.4 %
R&D as a percentage of revenue	*8.6 %*	*8.3 %*		

R&D expenses increased by $8.0 million, or 19.4%, to $49.6 million in the six months ended June 30, 2024, from $41.5 million in the six months ended June 30, 2023. The increase was primarily due to a $3.1 million increase in personnel-related expenses driven by an increase in headcount and related expenses to support our growth, a $2.7 million increase in product development and testing costs, and a $1.0 million increase in infrastructure costs.

We have continued to make investments, and plan to continue to make investments, in the development of our products. As part of our ongoing investment in the development of our products, we may incur additional expenses related to research and development milestones. In addition, we have experienced in the past, and may continue to experience in the future, variability in expenses incurred due to the timing and costs of clinical trials and product development, which may include additional personnel-related expenses in conjunction with the launch of new products.

Sales, General and Administrative (SG&A)

	Six Months Ended June 30,		Change	
	2024	2023	$	%
	(in thousands, except for percentages)			
SG&A	$ 286,315	$ 250,513	$ 35,802	14.3 %
SG&A *as a percentage of revenue*	*49.5 %*	*49.8 %*		

SG&A expenses increased by $35.8 million, or 14.3%, to $286.3 million in the six months ended June 30, 2024, from $250.5 million in the six months ended June 30, 2023. The increase was primarily due to a $13.7 million increase in personnel-related expense driven by an increase in headcount and related expenses to support our growth, a $6.0 million increase in costs related to marketing events, a $5.4 million increase in other professional services, and a $4.8 million increase in non-recurring litigation related expenses, including settlement costs and legal fees, associated with wage and hour complaints filed against the Company in 2023.

As we continue to invest in our growth, we have expanded and may continue to expand our sales, marketing, and general and administrative teams through the hiring of additional employees in critical roles that support our strategic initiatives. In addition, we have experienced in the past, and may continue to experience in the future, variability in expenses incurred due to the timing and costs of investments to support the business.

Impairment Charge

	Six Months Ended June 30,		Change	
	2024	2023	$	%
	(in thousands, except for percentages)			
Impairment Charge	$ 76,945	$ —	$ 76,945	100.0 %
Impairment Charge as a percentage of revenue	*13.3 %*	*— %*		

During the six months ended June 30, 2024, we recorded a $76.9 million impairment charge which was comprised of $58.9 million in finite lived intangible assets and $18.0 million in property and equipment, respectively in connection with the impairment of our immersive healthcare asset group. See Note “4. Impairment of Immersive Healthcare Asset Group” to our condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information.

(Benefit from) provision for income taxes

	Six Months Ended June 30,		Change	
	2024	2023	$	%
	(in thousands, except for percentages)			
(Benefit from) provision for income taxes	$ (14,050)	$ 666	$ (14,716)	(2,209.6)%
Effective tax rate	*22.2 %*	*2.4 %*		

Our benefit from income taxes was $14.1 million for the six months ended June 30, 2024, which was primarily due to tax expenses attributable to our worldwide profits and a discrete tax benefit attributable to the impairment charge related to our immersive healthcare asset group. Our provision for income taxes was $0.7 million for the six months ended June 30, 2023, which was primarily due to tax expenses attributable to our worldwide profits offset by excess tax benefits from stock-based compensation attributable to our U.S. jurisdiction.

Our effective tax rate changed to 22.2% for the six months ended June 30, 2024 from 2.4% for the six months ended June 30, 2023, primarily due to decrease in excess tax benefits from stock-based compensation attributable to our U.S. jurisdiction in 2024.

Prospectively, our effective tax rate will likely be driven by (1) permanent differences in taxable income for tax and financial reporting purposes, (2) tax expense or benefit attributable to our worldwide financial results, and (3) discrete tax adjustments such as excess tax benefits or deficiencies related to stock-based compensation. Our income tax provision can be volatile as the amount of excess tax benefits or deficiencies can fluctuate from period to period due to the price of our stock, the volume of share-based grants exercised or vested, and the fair value assigned to equity awards under U.S. GAAP. In addition, changes in tax law or our interpretation thereof, and changes to our valuation allowance could result in fluctuations in our effective tax rate.

Liquidity and Capital Resources

As of June 30, 2024, we had $792.8 million in working capital, which included $288.3 million in cash and cash equivalents and $51.4 million in marketable investments. As of June 30, 2024, we held approximately 8.5% of our cash and cash equivalents in foreign entities.

We believe our current sources of liquidity will be sufficient to meet our liquidity requirements for at least the next 12 months. Our principal liquidity requirements are to fund our operations, expand manufacturing operations which includes, but is not limited to, maintaining sufficient levels of inventory to meet the anticipated demand of our customers, fund research and development activities and fund our capital expenditures. We may also lease or purchase additional facilities to facilitate our growth. We expect to continue to make investments as we launch new products, expand our manufacturing operations and information technology infrastructures and further expand into international markets. We may, however, require or elect to secure additional financing as we continue to execute our business strategy. If we require or elect to raise additional funds, we may do so through equity or debt financing, which may not be available on favorable terms, could result in dilution to our stockholders, and could require us to agree to covenants that limit our operating flexibility.

The following table summarizes our cash and cash equivalents, marketable investments and selected working capital data as of June 30, 2024 and December 31, 2023:

	June 30, 2024	December 31, 2023
	(in thousands)	
Cash and cash equivalents	$ 288,332	$ 167,486
Marketable investments	51,363	121,701
Accounts receivable, net	200,831	201,768
Accounts payable	32,822	27,155
Accrued liabilities	104,071	110,555
Working capital[1]	792,801	764,258

[1]Working capital consists of total current assets less total current liabilities.

The following table sets forth, for the periods indicated, our beginning balance of cash and cash equivalents, net cash flows provided by (used in) operating, investing and financing activities and our ending balance of cash and cash equivalents:

	Six Months Ended June 30,	
	2024	2023
	(in thousands)	
Cash and cash equivalents at beginning of period	$ 167,486	$ 69,858
Net cash provided by operating activities	60,906	30,228
Net cash provided by investing activities	52,858	4,040
Net cash provided by financing activities	7,480	10,070
Cash and cash equivalents and at end of period	288,332	114,167

Net Cash Provided By Operating Activities

Net cash provided by operating activities consists primarily of net income adjusted for certain non-cash items (including depreciation and amortization, stock-based compensation expense, impairment charge, inventory write-offs and write-downs, changes in deferred tax balances, and the effect of changes in working capital and other activities).

Net cash provided by operating activities was $60.9 million during the six months ended June 30, 2024 and consisted of consolidated net loss of $49.2 million and non-cash items of $128.4 million, offset by net changes in operating assets and liabilities of $18.3 million. The change in operating assets and liabilities primarily relates to an increase in inventories of $23.0 million to support our growth and an increase in accounts payable of $5.5 million, due to timing of payments. This was partially offset by a decrease in accounts receivable of $2.0 million due to timing of invoicing and collections, a decrease in prepaid expenses and other current and non-current assets of $2.1 million, and a decrease in accrued expenses and other non-current liabilities of $0.9 million due to timing of payments.

Net cash provided by operating activities was $30.2 million during the six months ended June 30, 2023 and consisted of consolidated net income of $27.5 million and non-cash items of $41.4 million, offset by net changes in operating assets and liabilities of $38.7 million. The change in operating assets and liabilities primarily relates to an increase in inventories of $25.8 million to support our growth, an increase in accounts receivable of $8.4 million due to timing of receipt of payment, and an increase in prepaid expenses and other current and non-current assets of $5.9 million. This was partially offset by an increase in accrued expenses and other non-current liabilities of $1.6 million.

Net Cash Provided By Investing Activities

Net cash provided by investing activities relates primarily to purchases of marketable and non-marketable investments and capital expenditures, partially offset by proceeds from maturities of marketable investments.

Net cash provided by investing activities was $52.9 million during the six months ended June 30, 2024 and primarily consisted of $71.6 million in proceeds from maturities of marketable investments, net of purchases, partially offset by purchases of capital expenditures of $10.4 million and non-marketable investments of $10.0 million.

Net cash provided by investing activities was $4.0 million during the six months ended June 30, 2023 and primarily consisted of $12.8 million in proceeds from maturities of marketable investments, net of purchases, which was partially offset by capital expenditures of $8.2 million.

Net Cash Provided By Financing Activities

Net cash provided by financing activities primarily relates to proceeds from exercises of stock options and issuances of common stock under our employee stock purchase plan, partially offset by payments of employee taxes related to vested restricted stock units and payments towards the reduction of our finance lease obligations.

Net cash provided by financing activities was $7.5 million during the six months ended June 30, 2024 and primarily consisted of proceeds from the issuance of common stock under our employee stock purchase plan of $8.9 million, partially offset by $1.1 million in payments towards finance leases and $0.5 million of payments of employee taxes related to vested restricted stock units.

Net cash provided by financing activities was $10.1 million during the six months ended June 30, 2023 and primarily consisted of proceeds from the issuance of common stock under our employee stock purchase plan of $8.4 million and proceeds from exercises of stock options of $3.8 million, partially offset by $1.0 million of payments of employee taxes related to vested restricted stock units and $1.0 million in payments towards finance leases.

Contractual Obligations and Commitments

There have been no other material changes to our contractual obligations and commitments as of June 30, 2024 from those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2023.

Critical Accounting Policies and Estimates

We have prepared our financial statements in accordance with U.S. GAAP. Our preparation of these financial statements requires us to make estimates, assumptions, and judgments that affect the reported amounts of assets, liabilities, expenses, and related disclosures at the date of the financial statements, as well as revenue and expenses recorded during the reporting periods. We evaluate our estimates and judgments on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could therefore differ materially from these estimates under different assumptions or conditions.

There have been no material changes to our critical accounting policies from those described in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in our Annual Report on Form 10-K for the year ended December 31, 2023.

Recently Issued Accounting Standards

For information with respect to recently issued accounting standards and the impact of these standards on our consolidated financial statements, refer to Note “2. Summary of Significant Accounting Policies” to our condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

We are exposed to various market risks, which may result in potential losses arising from adverse changes in market rates, such as interest rates and foreign exchange rates. We do not enter into derivatives or other financial instruments for trading or speculative purposes and do not believe we are exposed to material market risk with respect to our cash and cash equivalents and/or our marketable investments.

Interest Rate Risk. We had cash and cash equivalents of $288.3 million as of June 30, 2024, which consisted of funds held in money market funds, general checking and savings accounts. In addition, we had marketable investments of $51.4 million, which consisted primarily of corporate bonds, commercial paper, U.S. treasury securities, certificates of deposit, and U.S. states and municipalities. Our investment policy is focused on the preservation of capital and supporting our liquidity needs. Under the policy, we invest in highly rated securities, while limiting the amount of credit exposure to any one issuer other than the U.S. government. We do not invest in financial instruments for trading or speculative purposes, nor do we use leveraged financial instruments. We utilize external investment managers who adhere to the guidelines of our investment policy. A hypothetical 100 basis point change in interest rates would not have a material impact on the value of our cash and cash equivalents or marketable investments.

Foreign Exchange Risk Management. We operate in countries other than the United States, and, therefore, we are exposed to foreign currency risks. We bill most sales outside of the United States in local currencies, primarily in euros, with some sales being denominated in other currencies. When sales or expenses are not denominated in U.S. dollars, a fluctuation in exchange rates could affect our net income. We do not believe our net income would be materially impacted by an immediate 10% adverse change in foreign exchange rates. We do not currently hedge our exposure to foreign currency exchange rate fluctuations; however, we may choose to hedge our exposure in the future.

While our gross margin for the six months ended June 30, 2024 was primarily impacted by product mix, regional mix, and production initiatives to support demand and create future efficiencies, changes in prices did not have a significant impact on our results of operations for any periods presented on our consolidated financial statements.

ITEM 4. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

An evaluation as of June 30, 2024 was carried out under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of the effectiveness of our "disclosure controls and procedures," which are defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as controls and other procedures of a company that are designed to ensure that the information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to the company's management, including its principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. Based upon that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of June 30, 2024.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarterly period ended June 30, 2024 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Limitations on the Effectiveness of Controls

A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within a company have been detected. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our disclosure control system are met.

PART II - OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS.

For information with respect to Legal Proceedings, see Note “8. Commitments and Contingencies” to our condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q.

ITEM 1A. RISK FACTORS.

There have been no material changes to our risk factors reported in, or new risk factors identified since the filing of, our Annual Report on Form 10-K for the year ended December 31, 2023, which was filed with the SEC on February 22, 2024.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS.

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES.

None.

ITEM 4. MINE SAFETY DISCLOSURE.

None.

ITEM 5. OTHER INFORMATION.

Rule 10b5-1 Trading Plans

During the quarterly period ended June 30, 2024, certain of our directors and officers adopted trading plans, each of which is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) under the Exchange Act (the “Rule 10b5-1 Trading Arrangements”). Each Rule 10b5-1 Trading Arrangement was entered into during an open trading window under our Securities Trading Policy. The following table presents the material terms of each Rule 10b5-1 Trading Arrangement adopted by our officers and directors during the three months ended June 30, 2024, other than terms with respect to the price at which the individual executing the Rule 10b5-1 Trading Arrangement is authorized to trade:

Name and Title of Officer or Director	Plan Action	Plan Action Date	Plan Duration	Total Securities to be Sold
Arani Bose, Director	Adoption	5/14/2024	9/19/2024 -1/31/2025	22,500
Harpreet Grewal, Director	Adoption	5/14/2024	9/4/2024 - 4/15/2025	1,315

ITEM 6. EXHIBITS.

Exhibit Number	Description	Form	File No.	Exhibit(s)	Filing Date
31.1	Certification of Principal Executive Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.				
31.2	Certification of Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.				
32.1*	Certification of Principal Executive Officer and Principal Financial Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350.				
101	The following materials from the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2024 formatted in Inline Extensible Business Reporting Language (iXBRL) includes: (i) Condensed Consolidated Balance Sheets as of June 30, 2024 and December 31, 2023, (ii) Condensed Consolidated Statements of Operations for the three and six months ended June 30, 2024 and 2023, (ii) Condensed Consolidated Statements of Comprehensive Income (Loss) for the three and six months ended June 30, 2024 and 2023, (iii) Condensed Consolidated Statements of Stockholders' Equity for the three and six months ended June 30, 2024 and 2023, (iv) Condensed Consolidated Statements of Cash Flows for the six months ended June 30, 2024 and 2023, and (v) Notes to Condensed Consolidated Financial Statements.				
104	Cover Page Interactive Data File (formatted as iXBRL with applicable taxonomy extension information contained in Exhibit 101).				

* Furnished herewith.

SIGNATURES

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

PENUMBRA, INC.

Date: July 30, 2024

By: /s/ Maggie Yuen

Maggie Yuen
Chief Financial Officer
(Principal Financial Officer)

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(a) AND 15d-14(a) OF THE SECURITIES EXCHANGE ACT, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Adam Elsesser, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Penumbra, 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 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 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: July 30, 2024

/s/ Adam Elsesser

Adam Elsesser

Chairman, Chief Executive Officer and President

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO RULE 13a-14(a) AND 15d-14(a) OF THE SECURITIES EXCHANGE ACT, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Maggie Yuen, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Penumbra, 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 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 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: July 30, 2024

/s/ Maggie Yuen

Maggie Yuen

Chief Financial Officer

Exhibit 32.1

PENUMBRA, INC.

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Penumbra, Inc. (the "Company") on Form 10-Q for the fiscal quarter ended June 30, 2024, as filed with the Securities and Exchange Commission (the "Report"), Adam Elsesser, Chairman, Chief Executive Officer and President of the Company, and Maggie Yuen, Chief Financial Officer of the Company, respectively, do each hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods presented.

/s/ Adam Elsesser

Adam Elsesser

Chairman, Chief Executive Officer and President

/s/ Maggie Yuen

Maggie Yuen

Chief Financial Officer

Date: July 30, 2024