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, 2021

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 23, 2021, the registrant had 36,580,540 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, 2021	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 82,277	$ 69,670
Marketable investments	156,722	195,162
Accounts receivable, net of allowance for credit losses of $2,153 and $2,198 at June 30, 2021 and December 31, 2020, respectively	136,610	114,608
Inventories	254,977	219,527
Prepaid expenses and other current assets	22,526	18,735
Total current assets	653,112	617,702
Property and equipment, net	50,854	48,169
Operating lease right-of-use assets	92,791	41,192
Finance lease right-of-use assets	37,031	38,065
Intangible assets, net	9,895	10,639
Goodwill	8,109	8,372
Deferred taxes	47,670	50,139
Other non-current assets	10,756	8,705
Total assets	$ 910,218	$ 822,983
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 13,712	$ 14,109
Accrued liabilities	86,503	85,795
Current operating lease liabilities	6,347	4,697
Current finance lease liabilities	1,484	1,331
Total current liabilities	108,046	105,932
Non-current operating lease liabilities	94,444	44,183
Non-current finance lease liabilities	26,691	27,066
Other non-current liabilities	7,661	8,014
Total liabilities	236,842	185,195
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Common stock	36	36
Additional paid-in capital	616,874	598,299
Accumulated other comprehensive income	329	2,541
Retained earnings	61,689	40,622
Total Penumbra, Inc. stockholders' equity	678,928	641,498
Non-controlling interest	(5,552)	(3,710)
Total stockholders' equity	673,376	637,788
Total liabilities and stockholders' equity	$ 910,218	$ 822,983

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,	
	2021	2020	2021	2020
Revenue	$ 184,258	$ 105,109	$ 353,462	$ 242,438
Cost of revenue	65,572	40,179	123,439	89,499
Gross profit	118,686	64,930	230,023	152,939
Operating expenses:				
Research and development	17,738	22,725	35,814	35,671
Sales, general and administrative	90,636	59,854	170,434	134,307
Total operating expenses	108,374	82,579	206,248	169,978
Income (loss) from operations	10,312	(17,649)	23,775	(17,039)
Interest income, net	299	108	779	407
Other (expense) income, net	(408)	511	(1,884)	(1,144)
Income (loss) before income taxes	10,203	(17,030)	22,670	(17,776)
Provision for (benefit from) income taxes	1,904	(4,129)	3,445	(5,763)
Consolidated net income (loss)	$ 8,299	$ (12,901)	$ 19,225	$ (12,013)
Net loss attributable to non-controlling interest	(932)	(941)	(1,842)	(1,478)
Net income (loss) attributable to Penumbra, Inc.	$ 9,231	$ (11,960)	$ 21,067	$ (10,535)
Net income (loss) attributable to Penumbra, Inc. per share:				
Basic	$ 0.25	$ (0.34)	$ 0.58	$ (0.30)
Diluted	$ 0.25	$ (0.34)	$ 0.56	$ (0.30)
Weighted average shares outstanding:				
Basic	36,523,011	35,400,542	36,489,548	35,221,727
Diluted	37,582,348	35,400,542	37,564,881	35,221,727

See accompanying notes to the unaudited condensed consolidated financial statements

Penumbra, Inc.

Condensed Consolidated Statements of Comprehensive Income (Loss)

(unaudited)

(in thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Consolidated net income (loss)	$ 8,299	$ (12,901)	$ 19,225	$ (12,013)
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments, net of tax	863	1,347	(1,832)	(287)
Net change in unrealized losses on available-for-sale securities, net of tax	(109)	1,131	(380)	514
Total other comprehensive income (loss), net of tax	754	2,478	(2,212)	227
Consolidated comprehensive income (loss)	$ 9,053	$ (10,423)	$ 17,013	$ (11,786)
Net loss attributable to non-controlling interest	(932)	(941)	(1,842)	(1,478)
Comprehensive income (loss) attributable to Penumbra, Inc.	$ 9,985	$ (9,482)	$ 18,855	$ (10,308)

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 Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Other Comprehensive (Loss) Income	Retained Earnings	Total Penumbra, Inc. Stockholders' Equity	Non-Controlling Interest	Total Stockholders' Equity
Balance at December 31, 2020	36,414,732	$ 36	$ 598,299	$ 2,541	$ 40,622	$ 641,498	$ (3,710)	$ 637,788
Issuance of common stock	79,080	—	666	—	—	666	—	666
Shares held for tax withholdings	(11,955)	—	(3,036)	—	—	(3,036)	—	(3,036)
Stock-based compensation	—	—	7,093	—	—	7,093	—	7,093
Other comprehensive loss	—	—	—	(2,966)	—	(2,966)	—	(2,966)
Net income (loss)	—	—	—	—	11,836	11,836	(910)	10,926
Balance at March 31, 2021	36,481,857	$ 36	$ 603,022	$ (425)	$ 52,458	$ 655,091	$ (4,620)	$ 650,471
Issuance of common stock	67,547	—	312	—	—	312	—	312
Issuance of common stock under employee stock purchase plan	35,221	—	7,354	—	—	7,354	—	7,354
Shares held for tax withholdings	(15,023)	—	(3,952)	—	—	(3,952)	—	(3,952)
Stock-based compensation	—	—	10,138	—	—	10,138	—	10,138
Other comprehensive income	—	—	—	754	—	754	—	754
Net income (loss)	—	—	—	—	9,231	9,231	(932)	8,299
Balance at June 30, 2021	36,569,602	$ 36	$ 616,874	$ 329	$ 61,689	$ 678,928	$ (5,552)	$ 673,376

	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Retained Earnings	Total Penumbra, Inc. Stockholders' Equity	Non-Controlling Interest	Total Stockholders' Equity
Balance at December 31, 2019	35,001,581	$ 35	$ 430,659	$ (2,324)	$ 57,522	$ 485,892	$ (279)	$ 485,613
Issuance of common stock	81,485	—	396	—	—	396	—	396
Shares held for tax withholdings	(12,058)	—	(2,105)	—	—	(2,105)	—	(2,105)
Stock-based compensation	—	—	6,774	—	—	6,774	—	6,774
Cumulative effect adjustment[1]	—	—	—	—	(1,198)	(1,198)	—	(1,198)
Other comprehensive loss	—	—	—	(2,251)	—	(2,251)	—	(2,251)
Net income (loss)	—	—	—	—	1,425	1,425	(537)	888
Balance at March 31, 2020	35,071,008	$ 35	$ 435,724	$ (4,575)	$ 57,749	$ 488,933	$ (816)	$ 488,117
Issuance of common stock	68,153	—	667	—	—	667	124	791
Issuance of common stock under employee stock purchase plan	41,590	—	5,945	—	—	5,945	—	5,945
Issuance of common stock upon underwritten public offering, net of issuance cost	865,963	1	134,758	—	—	134,759	—	134,759
Shares held for tax withholdings	(10,304)	—	(1,768)	—	—	(1,768)	—	(1,768)
Stock-based compensation	—	—	5,740	—	—	5,740	—	5,740
Other comprehensive income	—	—	—	2,478	—	2,478	—	2,478
Net income (loss)	—	—	—	—	(11,960)	(11,960)	(941)	(12,901)
Balance at June 30, 2020	36,036,410	$ 36	$ 581,066	$ (2,097)	$ 45,789	$ 624,794	$ (1,633)	$ 623,161

[1] Cumulative effect adjustments relate to the adoption of Accounting Standard Update ("ASU") No. 2016-13 Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments.

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,	
	2021	2020
CASH FLOWS FROM OPERATING ACTIVITIES:		
Consolidated net income (loss)	$ 19,225	$ (12,013)
Adjustments to reconcile consolidated net income (loss) to net cash used in operating activities:		
Depreciation and amortization	7,022	6,090
Stock-based compensation	16,198	11,248
Inventory write-downs	1,951	1,716
Deferred taxes	2,570	(5,240)
Impairment of intangible asset	—	2,500
Other	1,309	2,629
Changes in operating assets and liabilities:		
Accounts receivable	(22,898)	6,757
Inventories	(41,543)	(31,935)
Prepaid expenses and other current and non-current assets	(5,843)	(4,255)
Accounts payable	(689)	(6)
Accrued expenses and other non-current liabilities	5,020	(5,100)
Net cash used in operating activities	(17,678)	(27,609)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of marketable investments	(32,939)	(60,320)
Proceeds from sales of marketable investments	2,000	7,188
Proceeds from maturities of marketable investments	67,810	27,535
Purchases of property and equipment	(7,286)	(16,850)
Other	(150)	(2,060)
Net cash provided by (used in) investing activities	29,435	(44,507)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from issuance of common stock upon underwritten public offering, net of issuance cost	—	134,759
Proceeds from exercises of stock options	978	1,187
Proceeds from issuance of stock under employee stock purchase plan	7,354	5,945
Payment of employee taxes related to vested stock	(6,988)	(3,873)
Payments of finance lease obligations	(692)	(2,976)
Payment of acquisition-related obligations	—	(683)
Other	(93)	(248)
Net cash provided by financing activities	559	134,111
Effect of foreign exchange rate changes on cash and cash equivalents	291	(393)
NET INCREASE IN CASH AND CASH EQUIVALENTS	12,607	61,602
CASH AND CASH EQUIVALENTS—Beginning of period	69,670	72,779
CASH AND CASH EQUIVALENTS—End of period	$ 82,277	$ 134,381
NONCASH INVESTING AND FINANCING ACTIVITIES:		
Right-of-use assets obtained in exchange for operating lease obligations	$ 54,444	$ 830
Purchase of property and equipment funded through accounts payable and accrued liabilities	$ 2,236	$ 666
SUPPLEMENTAL CASH FLOW INFORMATION:		
Cash paid for amounts included in the measurement of operating lease liabilities	$ 3,914	$ 3,740

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.

2. Summary of Significant Accounting Policies

Basis of Presentation and Consolidation

The accompanying condensed consolidated balance sheet as of June 30, 2021, 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, 2021 and 2020, and the condensed consolidated statements of cash flows for the six months ended June 30, 2021 and 2020 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, 2020 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, 2021, the results of its operations for the three and six months ended June 30, 2021 and 2020, the changes in comprehensive income (loss) and stockholders’ equity for the three and six months ended June 30, 2021 and 2020, and the cash flows for the six months ended June 30, 2021 and 2020. The results for the three and six months ended June 30, 2021 are not necessarily indicative of the results that may be expected for the year ending December 31, 2021 or for any other future annual or interim period.

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 year ended December 31, 2020, included in the Company’s Annual Report on Form 10-K. There have been no changes to the Company’s significant accounting policies during the six months ended June 30, 2021, 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, 2020.

The condensed consolidated financial statements include the accounts of the Company, its wholly-owned subsidiaries and its majority-owned subsidiary. The portion of equity and consolidated net income not attributable to the Company is considered non-controlling interest and is classified separately in the condensed consolidated financial statements. Any subsequent changes in the Company’s ownership interest while the Company retains its controlling interest in its majority-owned subsidiary will be accounted for as equity transactions. 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, 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, operating and financing lease right-of-use (“ROU”) assets and liabilities, income taxes, contingent consideration and other contingencies, 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.

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 devices, 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 Adopted Accounting Standards

On January 1, 2021, the Company adopted ASU No. 2019-12, Income Taxes— Simplifying the Accounting for Income Taxes ("ASU 2019-12"). This new standard removes certain exceptions for recognizing deferred taxes of foreign investments, the incremental approach to performing intraperiod allocation, and calculating income taxes for year-to-date interim period losses when such losses exceed anticipated full year losses. The standard also adds guidance to reduce complexity in certain areas, including accounting for franchise taxes that are partially based on income, transactions with a government that result in a step up in goodwill tax basis, enacted tax law changes impact during interim periods, and allocation of taxes to members of a consolidated group which are not subject to tax. The adoption of ASU 2019-12 did not have a material impact on the consolidated financial statements during the six months ended June 30, 2021.

3. Investments and Fair Value of Financial Instruments

Marketable Investments

The Company's marketable investments have been classified and accounted for as available-for-sale. The following table presents the Company's marketable investments as of June 30, 2021 and December 31, 2020 (in thousands):

	June 30, 2021				
		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
Commercial paper	$ —	$ —	$ —	$ —	$ —
U.S. agency and government sponsored securities	4,548	7	—	—	4,555
U.S. states and municipalities	46,319	116	(10)	—	46,425
Corporate bonds	105,508	282	(48)	—	105,742
Total	$ 156,375	$ 405	$ (58)	$ —	$ 156,722

	December 31, 2020				
		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
Commercial paper	$ 4,242	$ 4	$ —	$ —	$ 4,246
U.S. agency and government sponsored securities	7,846	11	—	—	7,857
U.S. states and municipalities	47,934	162	(1)	—	48,095
Corporate bonds	134,298	669	(3)	—	134,964
Total	$ 194,320	$ 846	$ (4)	$ —	$ 195,162

As of June 30, 2021, the total amortized cost basis of the Company's impaired available-for-sale securities exceeded its fair value by a nominal amount. The Company reviewed its impaired available-for-sale securities and concluded that the decline in fair value was not related to credit losses and is recoverable. Accordingly, during the three and six months ended June 30, 2021 no allowance for credit losses was recorded and instead the unrealized losses are reported as a component of accumulated other comprehensive loss.

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 twelve months or for twelve months or more as of June 30, 2021 and December 31, 2020 (in thousands):

	June 30, 2021					
	Less than 12 months		12 months or more		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. states and municipalities	$ 4,595	$ (10)	$ —	$ —	$ 4,595	$ (10)
Corporate bonds	20,632	(48)	—	—	20,632	(48)
Total	$ 25,227	$ (58)	$ —	$ —	$ 25,227	$ (58)

	December 31, 2020					
	Less than 12 months		12 months or more		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. states and municipalities	$ 1,408	$ (1)	$ —	$ —	$ 1,408	$ (1)
Corporate bonds	12,552	(3)	—	—	12,552	(3)
Total	$ 13,960	$ (4)	$ —	$ —	$ 13,960	$ (4)

The following table presents the contractual maturities of the Company’s marketable investments as of June 30, 2021 (in thousands):

	June 30, 2021	
	Amortized Cost	Fair Value
Due in less than one year	$ 87,334	$ 87,601
Due in one to five years	69,041	69,121
Total	$ 156,375	$ 156,722

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 measurement 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.

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 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.

The Company did not hold any Level 3 marketable investments as of June 30, 2021 or December 31, 2020. During the six months ended June 30, 2021 and 2020, the Company did not have any transfers between Level 1, Level 2 or Level 3 of the fair value hierarchy. Additionally, the Company did not have any financial assets and liabilities measured at fair value on a non-recurring basis as of June 30, 2021 or December 31, 2020.

The following tables set forth the Company's financial assets measured at fair value by level within the fair value hierarchy as of June 30, 2021 and December 31, 2020 (in thousands):

	As of June 30, 2021			
	Level 1	Level 2	Level 3	Fair Value
Financial Assets				
Cash equivalents:				
Money market funds	$ 43,943	$ —	$ —	$ 43,943
Marketable investments:				
Commercial paper	—	—	—	—
U.S. agency and government sponsored securities	—	4,555	—	4,555
U.S. states and municipalities	—	46,425	—	46,425
Corporate bonds	—	105,742	—	105,742
Total	$ 43,943	$ 156,722	$ —	$ 200,665

	As of December 31, 2020			
	Level 1	Level 2	Level 3	Fair Value
Financial Assets				
Cash equivalents:				
Money market funds	$ 33,054	$ —	$ —	$ 33,054
Marketable investments:				
Commercial paper	—	4,246	—	4,246
U.S. agency and government sponsored securities	—	7,857	—	7,857
U.S. states and municipalities	—	48,095	—	48,095
Corporate bonds	—	134,964	—	134,964
Total	$ 33,054	$ 195,162	$ —	$ 228,216

Contingent Consideration Obligations

As of June 30, 2021 and December 31, 2020, there were no contingent consideration liabilities classified as Level 3. The Company had a contingent consideration liability balance of $1.2 million related to milestone payments due in connection with the 2017 acquisition of Crossmed S.p.a. ("Crossmed") and was based on actual revenue performance for the year ended December 31, 2019 and not based on unobservable inputs. The Company made this payment during the six months ended June 30, 2020, of which $0.5 million is presented in operating activities and $0.7 million is presented in financing activities in the condensed consolidated statement of cash flows.

Penumbra, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

The following table summarizes the changes in fair value of the contingent consideration obligation for the six months ended June 30, 2020 (in thousands):

	Fair Value of Contingent Consideration
Balance at December 31, 2019	$ 1,206
Payments of contingent consideration liabilities	(1,186)
Changes in fair value	—
Foreign currency remeasurement	(20)
Balance at June 30, 2020	$ —

4. Balance Sheet Components

Inventories

The following table shows the components of inventories as of June 30, 2021 and December 31, 2020 (in thousands):

	June 30, 2021	December 31, 2020
Raw materials	$ 64,126	$ 45,341
Work in process	14,092	22,099
Finished goods	176,759	152,087
Inventories	$ 254,977	$ 219,527

Operating Lease Right-of-Use Assets and Lease Liabilities

During the third quarter of 2019, the Company signed a fifteen year lease for additional space at the Company's headquarters located in the Harbor Bay Business Park in Alameda, California (the "1310 Harbor Bay Lease"). During the second quarter of 2021, the 1310 Harbor Bay Lease commenced and the Company recorded a $53.2 million operating lease right-of-use asset and current and non-current operating lease liabilities of $1.4 million and $51.9 million, respectively, on the condensed consolidated balance sheet. The Company used an incremental borrowing rate of 4.7% to record the 1310 Harbor Bay Lease on the condensed consolidated balance sheet, based on an analysis to develop a synthetic credit rating and determine its cost of debt as there was no readily determinable rate implicit in the lease. The fixed lease payments for base rent total approximately $3.5 million in the first year of the 1310 Harbor Bay Lease, including a two-month rent abatement period during the first year. The total estimated lease payments over the fifteen year lease term are approximately $77 million. The Company has the option to renew the lease for an additional five, ten or fifteen years.

Accrued Liabilities

The following table shows the components of accrued liabilities as of June 30, 2021 and December 31, 2020 (in thousands):

	June 30, 2021	December 31, 2020
Payroll and employee-related cost	$ 52,687	$ 50,083
Accrued expenses	11,103	9,246
Sales return provision	1,730	9,812
Product warranty	3,495	2,896
Other acquisition-related costs[1]	3,000	3,000
Other accrued liabilities	14,488	10,758
Total accrued liabilities	$ 86,503	$ 85,795

[1] Amount consists of a contingent liability related to an anti-dilution provision from the asset acquisition of MVI Health Inc. ("MVI") in 2018.

Penumbra, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

The following table shows the changes in the Company’s estimated product warranty accrual, included in accrued liabilities, as of June 30, 2021 and December 31, 2020 (in thousands):

	June 30, 2021	December 31, 2020
Balance at the beginning of the period	$ 2,896	$ 2,318
Accruals of warranties issued	1,372	1,589
Settlements of warranty claims	(773)	(1,011)
Balance at the end of the period	$ 3,495	$ 2,896

5. Intangible Assets

Acquired Intangible Assets

The following tables present details of the Company’s acquired finite-lived intangible assets, as of June 30, 2021 and December 31, 2020 (in thousands, except weighted-average amortization period):

As of June 30, 2021	Weighted-Average Amortization Period	Gross Carrying Amount	Accumulated Amortization	Net
Customer relationships	15.0 years	$ 7,081	$ (1,889)	$ 5,192
Trade secrets and processes	20.0 years	5,256	(920)	4,336
Other	5.0 years	1,826	(1,459)	367
Total intangible assets	16.8 years	$ 14,163	$ (4,268)	$ 9,895

As of December 31, 2020	Weighted-Average Amortization Period	Gross Carrying Amount	Accumulated Amortization	Net
Customer relationships	15.0 years	$ 7,311	$ (1,706)	$ 5,605
Trade secrets and processes	20.0 years	5,256	(788)	4,468
Other	5.0 years	1,885	(1,319)	566
Total intangible assets	16.6 years	$ 14,452	$ (3,813)	$ 10,639

The customer relationships and other intangible assets subject to amortization relate to the acquisition of Crossmed during the third quarter of 2017. The gross carrying amount and accumulated amortization of these intangible assets are 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 entered into during the first quarter of 2018.

The following table presents the amortization expense recorded related to the Company’s finite-lived intangible assets for the three and six months ended June 30, 2021 and June 30, 2020 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Cost of revenue	$ 66	$ 66	$ 131	$ 131
Sales, general and administrative	212	194	425	388
Total	$ 278	$ 260	$ 556	$ 519

Licensed technology

During the third quarter of 2017, the Company entered into an exclusive technology license agreement (the “License Agreement”) that required the Company to pay an upfront payment to the licensor of $2.5 million and future revenue milestone-based payments on sales of products covered by the licensed intellectual property. The Company accounted for the transaction as an asset acquisition and recorded an indefinite-lived intangible asset as it was determined to have alternative future use. The Company recorded an indefinite-lived intangible asset equal to the total payments made and expected to be made under the License Agreement and a corresponding contingent liability for the probable future milestone payments not yet paid.

Penumbra, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

Indefinite-lived intangible assets are tested for impairment annually during the fourth quarter or more frequently if events or changes in circumstances between annual tests indicate that it is more likely than not that the asset is impaired. As a result of a triggering event in July 2020 that provided additional information about a condition that existed on the balance sheet date, the Company determined that an impairment existed as of June 30, 2020. As a result, the Company wrote-off the full carrying value of the indefinite-lived intangible asset and its related contingent liabilities, and recognized an impairment loss of $2.5 million in research and development expense in the consolidated statement of operations as of June 30, 2020.

At the end of each reporting period the Company had also adjusted the contingent liabilities to reflect the amount of future milestone payments that were probable to be paid. Prior to the commercialization of products utilizing the underlying technology, any changes in the contingent liability were recorded as an adjustment between the liability balances and the gross carrying amount of the indefinite-lived intangible asset. As of June 30, 2021 and December 31, 2020, there was no contingent liability balance related to probable future milestone payments under the License Agreement.

6. Goodwill

The following table presents the changes in goodwill during the six months ended June 30, 2021 (in thousands):

	Total Company
Balance as of December 31, 2020	$ 8,372
Foreign currency translation	(263)
Balance as of June 30, 2021	$ 8,109

Goodwill Impairment Review

The Company reviews goodwill for impairment annually during the fourth quarter or more frequently if events or circumstances indicate that an impairment loss may have occurred. The Company determined that there was no impairment of goodwill as of June 30, 2021.

7. Indebtedness

Credit Agreement

On April 24, 2020, the Company entered into a Credit Agreement (the “Credit Agreement”) with JPMorgan Chase Bank, N.A., as administrative agent and lender, and Bank of America, N.A. and Citibank, N.A. as lenders. The Credit Agreement is secured and provides for up to $100 million in available revolving borrowing capacity with an option, subject to certain conditions, for the Company to increase the aggregate borrowing capacity to up to $150 million, and was set to mature on April 23, 2021. The Company entered into an amended one-year credit agreement with JPMorgan Chase Bank, N.A., as administrative agent and lender, and Bank of America, N.A. and Citibank, N.A. as lenders during the three months ended March 31, 2021.

The amended Credit Agreement extended the maturity date from April 23, 2021 to February 21, 2022 and has substantially the same terms and conditions as the prior credit agreement with certain changes including the exclusion of certain one-time charges and expenses incurred during the fiscal quarters ended September 30, 2020 and December 31, 2020 from the calculation of the financial covenants, reductions in interest rate floors applicable to revolving loans and other changes to borrowing mechanics under the Credit Agreement.

The Credit Agreement requires the Company to maintain a minimum fixed charge coverage ratio and to not exceed a maximum leverage ratio. As of June 30, 2021, the Company was in compliance with these requirements.

As of June 30, 2021 and December 31, 2020, there were no borrowings outstanding under the amended Credit Agreement.

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. 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. As of both June 30, 2021 and December 31, 2020, the amended license agreement required minimum quarterly royalty payments of $0.3 million. Unless terminated earlier, the term of the amended license agreement shall expire June 30, 2029.

Penumbra, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

In April 2012, the Company entered into an agreement that requires the Company to pay, on a quarterly basis, a 5% royalty on sales of products covered under applicable patents. The first commercial sale of covered products occurred in April 2014. Unless terminated earlier, the royalty term for each applicable product shall continue for fifteen years following the first commercial sale of such patented product, or when the applicable patent covering such product has expired, whichever is sooner.

Royalty expense included in cost of revenue for the three months ended June 30, 2021 and 2020, was $0.6 million and $0.4 million, respectively, and for the six months ended June 30, 2021 and 2020, was $1.1 million and $1.1 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 other claims and assessments in the ordinary course of business.

On January 15, 2021, a putative securities class action complaint was filed against the Company and its CEO, Adam Elsesser, and Executive Vice President, Global Marketing and Public Relations, Gita Barry, on behalf of a single shareholder in the U.S. District Court for the Northern District of California, asserting claims under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 and Rule 10b-5 promulgated thereunder. The complaint sought unspecified damages on behalf of a purported class that would comprise all individuals who purchased or otherwise acquired the Company's common stock between August 3, 2020 and December 15, 2020. The complaint alleged securities law violations based on allegedly misleading statements and/or omissions made in connection with the Company’s JET 7 Xtra Flex product. On March 16, 2021, the plaintiff voluntarily dismissed the complaint without prejudice.

The Company is not currently a party to any litigation matter that, individually or in the aggregate, is expected to have a material adverse effect on the Company’s business, financial condition, results of operations or cash flows.

9. Stockholders’ Equity

Common Stock

In June 2020, we issued and sold an aggregate of 865,963 shares of our common stock at a public offering price of $166.00 per share, less the underwriters’ discounts and commissions, pursuant to an underwritten public offering. The Company received approximately $134.8 million in net cash proceeds from the offering after deducting underwriting discounts and commissions of $8.6 million and other offering expenses of $0.4 million.

Equity Incentive Plans

Stock Options

Activity of stock options under the 2005 Plan, 2011 Plan and 2014 Plan (collectively, the "Plans") is set forth below:

	Number of Shares	Weighted-Average Exercise Price
Balance at December 31, 2020	1,020,978	$ 23.38
Exercised	(70,244)	13.92
Canceled/Forfeited	(150)	19.07
Balance at June 30, 2021	950,584	24.08

Restricted Stock and Restricted Stock Units

Activity of unvested restricted stock awards and restricted stock units under the Plans during the six months ended June 30, 2021 is set forth below:

	Number of Shares	Weighted -Average Grant Date Fair Value
Unvested at December 31, 2020	369,629	$ 163.03
Granted	76,360	257.91
Released/Vested - Restricted Stock/RSUs	(76,383)	143.39
Canceled/Forfeited	(9,872)	184.94
Unvested at June 30, 2021	359,734	186.74

As of June 30, 2021, 342,797 restricted stock awards and restricted stock units are expected to vest.

Stock-based Compensation

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, 2021 and 2020 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Cost of revenue	$ 543	$ 407	$ 1,341	$ 1,055
Research and development	1,188	891	2,250	1,765
Sales, general and administrative	8,072	4,261	12,607	8,428
Total	$ 9,803	$ 5,559	$ 16,198	$ 11,248

As of June 30, 2021, total unrecognized compensation cost was $54.8 million related to unvested share-based compensation arrangements which is expected to be recognized over a weighted average period of 2.8 years.

The total stock-based compensation cost capitalized in inventory was $1.6 million and $1.2 million as of June 30, 2021 and December 31, 2020, respectively.

10. Accumulated Other Comprehensive Income

Other comprehensive income (loss) consists of two components: unrealized gains or losses on the Company's available-for-sale marketable investments and gains or losses from foreign currency translation adjustments. Until realized and reported as a component of consolidated net income (loss), these comprehensive income (loss) items accumulate and are included within accumulated other comprehensive income. Unrealized gains and losses on the Company's marketable investments are reclassified from accumulated other comprehensive 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 income.

Penumbra, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

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 income into earnings affect the Company's condensed consolidated statements of operations and condensed consolidated statements of comprehensive income (loss) (in thousands):

	Three Months Ended June 30, 2021			Three Months Ended June 30, 2020		
	Marketable Investments	Currency Translation Adjustments	Total	Marketable Investments	Currency Translation Adjustments	Total
Balance, beginning of the period	$ 376	$ (801)	$ (425)	$ (379)	$ (4,196)	$ (4,575)
Other comprehensive (loss) income before reclassifications:						
Unrealized (loss) gain — marketable investments	(142)	—	(142)	1,360	—	1,360
Foreign currency translation (losses) gains	—	863	863	—	1,347	1,347
Income tax effect — expense	33	—	33	(229)	—	(229)
Net of tax	(109)	863	754	1,131	1,347	2,478
Amounts reclassified from accumulated other comprehensive income (loss) to consolidated net (loss) income:						
Realized gain (loss) — marketable investments	—	—	—	—	—	—
Income tax effect — expense (benefit)	—	—	—	—	—	—
Net of tax	—	—	—	—	—	—
Net current-year other comprehensive (loss) income	(109)	863	754	1,131	1,347	2,478
Balance, end of the period	$ 267	$ 62	$ 329	$ 752	$ (2,849)	$ (2,097)

	Six Months Ended June 30, 2021			Six Months Ended June 30, 2020		
	Marketable Investments	Currency Translation Adjustments	Total	Marketable Investments	Currency Translation Adjustments	Total
Balance at beginning of the period	$ 647	$ 1,894	$ 2,541	$ 238	$ (2,562)	$ (2,324)
Other comprehensive (loss) income before reclassifications:						
Unrealized gain — marketable investments	(495)	—	(495)	671	—	671
Foreign currency translation gains (losses)	—	(1,832)	(1,832)	—	(287)	(287)
Income tax effect — expense	115	—	115	(157)	—	(157)
Net of tax	(380)	(1,832)	(2,212)	514	(287)	227
Amounts reclassified from accumulated other comprehensive income (loss) to consolidated net (loss) income:						
Realized gain (loss)— marketable investments	—	—	—	—	—	—
Income tax effect — expense	—	—	—	—	—	—
Net of tax	—	—	—	—	—	—
Net current-year other comprehensive income (loss)	(380)	(1,832)	(2,212)	514	(287)	227
Balance at end of the period	$ 267	$ 62	$ 329	$ 752	$ (2,849)	$ (2,097)

11. Income Taxes

The Company's income tax expense, 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.

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.

The Company's provision for income taxes for the three months ended June 30, 2021 was $1.9 million, compared to $4.1 million of tax benefit for the three months ended June 30, 2020. The Company's provision for income taxes for the six months ended June 30, 2021 was $3.4 million, compared to $5.8 million of tax benefit for the six months ended June 30, 2020. The Company's provision for income taxes for the three and six months ended June 30, 2021 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 benefit from income taxes for the three and six months ended June 30, 2020 was primarily due to tax benefits attributable to its worldwide losses as a result of the COVID-19 pandemic impact combined with excess tax benefits from stock-based compensation attributable to its U.S. jurisdiction.

The Company's effective tax rate changed to 18.7% for the three months ended June 30, 2021, compared to 24.2% for the three months ended June 30, 2020. The Company's effective tax rate changed to 15.2% for six months ended June 30, 2021, compared to 32.4% for the six months ended June 30, 2020. The Company's change in effective tax rate was primarily attributable to small tax expenses over relatively large worldwide profits for the three and six months ended June 30, 2021, when compared to large tax benefits over relatively small worldwide losses for the three and six months ended June 30, 2020.

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. 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, 2021 and 2020, the Company maintains a valuation allowance against its Federal Research and Development Tax Credit and California DTAs as the Company could not conclude at the required more-likely-than-not level of certainty, that the benefit of these tax attributes would be realized prior to expiration. As of June 30, 2021 and 2020, the Company also maintains a valuation allowance against DTAs acquired from MVI which are subject to Separate Return Limitation Year ("SRLY") rules that limit the utilization of the pre-acquisition tax attributes to offset future taxable income solely generated by MVI.

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 are not provided for in the Company's condensed consolidated financial statements as of June 30, 2021. In the three months ended June 30, 2021, the Company repatriated $7.3 million from its Germany subsidiary, which did not result in any material U.S. and foreign tax consequences.

12. Net Income (Loss) Attributable to Penumbra, Inc. Per Share

The Company computed basic net income (loss) attributable to Penumbra, Inc. per share based on the weighted average number of shares of common stock outstanding during the period. The Company computed diluted net income (loss) attributable to Penumbra, Inc. per share based on the weighted average number of shares of common stock outstanding plus potentially dilutive common stock equivalents outstanding during the period using the treasury stock method. For the purposes of this calculation, stock options, restricted stock, restricted stock units and stock sold through the Company's employee stock purchase plan are considered common stock equivalents.

Penumbra, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Numerator:				
Net income (loss) attributable to Penumbra, Inc.	$ 9,231	$ (11,960)	$ 21,067	$ (10,535)
Denominator:				
Weighted average shares used to compute net income (loss) attributable to common stockholders:				
Basic	36,523,011	35,400,542	36,489,548	35,221,727
Potential dilutive stock-based options and awards	1,059,337	—	1,075,333	—
Diluted	37,582,348	35,400,542	37,564,881	35,221,727
Net income (loss) attributable to Penumbra, Inc. per share:				
Basic	$ 0.25	$ (0.34)	$ 0.58	$ (0.30)
Diluted	$ 0.25	$ (0.34)	$ 0.56	$ (0.30)

For the three months ended June 30, 2021 and 2020, outstanding stock-based awards of 28 thousand and 1.8 million shares, respectively, and for the six months ended June 30, 2021 and 2020 outstanding stock-based awards of 37 thousand and 1.8 million shares respectively, were excluded from the computation of diluted net income (loss) attributable to Penumbra, Inc. per share because their effect would have been anti-dilutive.

13. 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.

The following table presents 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, 2021 and 2020 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
United States	$ 128,402	$ 78,043	$ 248,472	$ 173,817
International	55,856	27,066	104,990	68,621
Total	$ 184,258	$ 105,109	$ 353,462	$ 242,438

The following table presents the Company’s revenues disaggregated by product category, for the three and six months ended June 30, 2021 and 2020 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Vascular	$ 100,684	$ 46,272	$ 189,849	$ 105,525
Neuro	83,574	58,837	163,613	136,913
Total	$ 184,258	$ 105,109	$ 353,462	$ 242,438

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 Chinese partner, the Company agreed to license the technology for certain products to its Chinese partner to permit the manufacturing and commercialization of such products in China as well as provide certain regulatory support. Apart from the standard distribution agreement, the Company will receive fixed payments upon transferring its distinct licensed technology and providing related regulatory support and receive royalty payments on the downstream sales of the licensed products.

Performance Obligations

Delivery of products - The Company's contracts with customers 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 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, 2021.

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, 2021, 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.

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, 2020, included in our Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on February 23, 2021.

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, 2020. 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

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 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 capabilities in our major markets: neuro and vascular. We have successfully developed, obtained regulatory clearance or approval for, and introduced products into the neurovascular market since 2007, vascular market since 2013 and neurosurgical market since 2014, respectively. We continue to expand our portfolio of product offerings, while developing and iterating on our currently available products.

We expect to continue to develop and build our portfolio of products, including our thrombectomy, embolization and access technologies. 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.

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

<u>Our neuro products fall into five broad product families:</u>

- Neuro thrombectomy - Penumbra System, including Penumbra JET, ACE and the 3D Revascularization Device, Penumbra ENGINE and other components and accessories
- Neuro embolization - Penumbra SMART COIL, Penumbra Coil 400, POD400 and PAC400
- Neuro access - delivery catheters, consisting of Neuron, Neuron MAX, Select, BENCHMARK, DDC and PX SLIM
- Neurosurgical - Artemis Neuro Evacuation Device
- Virtual Reality Platform - REAL Immersive System

<u>Our vascular products fall into two broad product families:</u>

- Vascular thrombectomy - INDIGO System designed for mechanical thrombectomy, including aspiration catheters, separators, aspiration pump and accessories and Lightning, our next-generation aspiration system for peripheral thrombectomy

- Peripheral embolization - RUBY Coil System, LANTERN Delivery Microcatheter and the POD System (POD and POD Packing Coil)

We sell our products to hospitals and other healthcare providers primarily through our direct sales organization in the United States, most of Europe, Canada and Australia, as well as through distributors in select international markets. In the six months ended June 30, 2021 and 2020, 29.7% and 28.3% 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 and Japanese yen, 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 $353.5 million and $242.4 million for the six months ended June 30, 2021 and 2020, respectively, an increase of $111.0 million. We generated an operating income of $23.8 million and operating loss of $17.0 million for the six months ended June 30, 2021 and 2020, respectively.

COVID-19 Pandemic

In March 2020, the World Health Organization declared the outbreak of COVID-19 as a pandemic, which continues to spread throughout the U.S. and the world. In response, governments have issued orders restricting certain activities, and while our business falls within the category of healthcare operations, which are essential businesses permitted to continue operating during the COVID-19 pandemic, we have experienced, and expect to continue to experience, disruptions to our operations as a result of the pandemic. For example, hospital resources have been diverted to fight the pandemic, and many government agencies in conjunction with healthcare systems have recommended the deferral of elective and semi-elective medical procedures during the pandemic. Some of Penumbra's medical devices are used in certain procedures that the United States Centers for Medicare & Medicaid Services ("CMS") has indicated are "high-acuity" procedures that should not be postponed during the pandemic in its March 18, 2020 recommendations, while other Penumbra devices are used in elective procedures that physicians may consider postponing. Many of the procedures in which our vascular products are used are elective in nature, whereas procedures in which our neuro products are used, such as stroke, tend to be more emergent in nature.

The impact of COVID-19 on our business remains fluid, and we continue to actively monitor the dynamic situation. We will continue to undertake the following specific actions and strategic priorities to navigate the pandemic:

- We have made changes to how we manufacture, inspect and ship our products to prioritize the health and safety of our employees and to operate under the protocols mandated by our local and state governments. While we are committed to continue meeting demand for our essential devices, we have implemented social distancing and other measures to protect the health and safety of our employees, which have reduced, and may continue to reduce, our manufacturing capacity.
- We further strengthened our liquidity position by entering into a Credit Agreement (the "Credit Agreement") on April 24, 2020, with JPMorgan Chase Bank, N.A., as administrative agent and lender, and Bank of America, N.A. and Citibank, N.A. as lenders. The Credit Agreement is secured and provides for up to $100 million in available revolving borrowing capacity with an option, subject to certain conditions, for us to increase the aggregate borrowing capacity to up to $150 million. This revolving line of credit provides access to capital beyond the $239.0 million in cash, cash equivalents and marketable investments on our balance sheet as of June 30, 2021, and we believe this will allow us to both navigate the current environment and emerge in a strong liquidity position after the pandemic. During the three months ended March 31, 2021, we entered into an amended one-year credit agreement with JPMorgan Chase Bank, N.A., as administrative agent and lender, and Bank of America, N.A. and Citibank, N.A. as lenders. The amended Credit Agreement extended the maturity date from April 23, 2021 to February 21, 2022 and has substantially the same terms and conditions as the prior credit agreement with certain changes including the exclusion of certain one-time charges and expenses incurred during the fiscal quarters ended September 30, 2020 and December 31, 2020 from the calculation of the financial covenants, reductions in interest rate floors applicable to revolving loans and other changes to borrowing mechanics under the Credit Agreement. As of June 30, 2021, the Company was in compliance with the requirements in the amended Credit Agreement. As of June 30, 2021, there were no borrowings outstanding under the Credit Agreement.
- We will continue to prioritize investments in our production capacity and flexibility, commercial channels, preparation for new product launches, and new product developments to help patients.

While we have seen positive trends in certain areas of our business beginning in May 2020, we remain mindful of the negative impacts on business trends we experienced in April 2020 due to the COVID-19 pandemic. The general impact of COVID-19 on our business has been negative and we are unable to reliably predict the full impact that the COVID-19 pandemic will have on our business due to numerous uncertainties, including the severity and duration of the pandemic, the global resurgences of cases, particularly as new variants of the virus spread, additional actions that may be taken by governmental authorities in response to the pandemic, the impact of the pandemic on the business of our customers, distributors and suppliers, other businesses and worldwide economies in general, our ability to have access to our customers to provide training and case support, and other factors identified in Part I, Item 1A "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2020. We will continue to evaluate the nature and extent of the impact of COVID-19 on our business, consolidated results of operations, and financial condition.

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 COVID-19 pandemic and measures taken in response thereto, which have negatively affected, and we expect will continue to negatively affect, our revenues and results of operations. Due to these impacts and measures, we may experience significant and unpredictable fluctuations in demand for certain of our products as hospital customers re-prioritize the treatment of patients and distributors adjust their operations to support the current demand level.
- 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 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 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 impact of COVID-19, 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 write-offs due to obsolescence; 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. Due to the impact of the COVID-19 pandemic on our business during the quarter ended June 30, 2020, comparisons of our results of operations for the three and six months ended June 30, 2021 to the comparable period of the prior year may not be indicative of our performance in future periods as we saw an increase in elective procedures during the six months ended June 30, 2021 as COVID-19 vaccinations increased in the U.S.

Components of Results of Operations

Revenue. We sell our 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: neuro and vascular disease. 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. In addition, we record write-downs or write-offs of inventory in the event that a portion of our inventory becomes excess or obsolete.

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 generally expense R&D costs as they are incurred, with the exception of certain costs incurred for the development of computer software for internal use related to our REAL Immersive System offerings. We capitalize certain costs when it is determined that it is probable that the project will be completed and the software will be used to perform the function intended, and the preliminary project stage is completed. Capitalized internal use software development costs are included in property and equipment, net within the condensed consolidated balance sheets.

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.

(Benefit from) Provision For 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.

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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,			
	2021		2020		2021		2020	
	(in thousands, except for percentages)				(in thousands, except for percentages)			
Revenue	$ 184,258	100.0 %	$ 105,109	100.0 %	$ 353,462	100.0 %	$ 242,438	100.0 %
Cost of revenue	65,572	35.6	40,179	38.2	123,439	34.9	89,499	36.9
Gross profit	118,686	64.4	64,930	61.8	230,023	65.1	152,939	63.1
Operating expenses:								
Research and development	17,738	9.6	22,725	21.6	35,814	10.1	35,671	14.7
Sales, general and administrative	90,636	49.2	59,854	56.9	170,434	48.2	134,307	55.4
Total operating expenses	108,374	58.8	82,579	78.6	206,248	58.4	169,978	70.1
Income (loss) from operations	10,312	5.6	(17,649)	(16.8)	23,775	6.7	(17,039)	(7.0)
Interest income, net	299	0.2	108	0.1	779	0.2	407	0.2
Other (expense) income, net	(408)	(0.2)	511	0.5	(1,884)	(0.5)	(1,144)	(0.5)
Income (loss) before income taxes	10,203	5.5	(17,030)	(16.2)	22,670	6.4	(17,776)	(7.3)
Provision for (benefit from) income taxes	1,904	1.0	(4,129)	(3.9)	3,445	1.0	(5,763)	(2.4)
Consolidated net income (loss)	$ 8,299	4.5 %	$ (12,901)	(12.3) %	$ 19,225	5.4 %	$ (12,013)	(5.0) %
Net loss attributable to non-controlling interest	(932)	(0.5)	(941)	(0.9)	(1,842)	(0.5)	(1,478)	(0.6)
Net income (loss) attributable to Penumbra, Inc.	$ 9,231	5.0 %	$ (11,960)	(11.4) %	$ 21,067	6.0 %	$ (10,535)	(4.3) %

Three Months Ended June 30, 2021 Compared to the Three Months Ended June 30, 2020

Revenue

	Three Months Ended June 30,		Change	
	2021	2020	$	%
	(in thousands, except for percentages)			
Vascular	$ 100,684	$ 46,272	$ 54,412	117.6 %
Neuro	83,574	58,837	24,737	42.0 %
Total	$ 184,258	$ 105,109	$ 79,149	75.3 %

Revenue increased $79.1 million, or 75.3%, to $184.3 million in the three months ended June 30, 2021, from $105.1 million in the three months ended June 30, 2020. Overall revenue growth is primarily due to an increase in sales of new and existing products within our vascular and neuro businesses, as well as a higher number of elective procedures performed as COVID-19 vaccination rates increased. Given the current state of vaccinations and the spread of new variants of the virus, it is possible that the increase in elective cases will begin to normalize in future quarters.

Revenue from our vascular products increased $54.4 million, or 117.6%, to $100.7 million in the three months ended June 30, 2021, from $46.3 million in the three months ended June 30, 2020. This increase was driven by sales of our vascular thrombectomy products and peripheral embolization products, which globally increased by 144.2% and 87.4%, respectively in the three months ended June 30, 2021. These increases were primarily due to higher sales volume as a result of sales of new products, further market penetration of our existing products, and an increase in the number of elective procedures performed. Prices for our vascular products remained substantially unchanged during the period.

Revenue from our neuro products increased $24.7 million, or 42.0%, to $83.6 million in the three months ended June 30, 2021, from $58.8 million in the three months ended June 30, 2020. This increase in revenue from our neuro products was primarily attributable to increased revenue in China, sales of new products, and further market penetration of our existing products. These increases were driven by an increase in sales of our neuro access products, neuro embolization products and neuro thrombectomy products which globally increased by 80.7%, 51.7% and 26.2%, respectively, in the three months ended June 30, 2021. Prices for our neuro 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, 2021 and 2020:

	Three Months Ended June 30,				Change	
	2021		2020		$	%
	(in thousands, except for percentages)					
United States	$ 128,402	69.7 %	$ 78,043	74.2 %	$ 50,359	64.5 %
International	55,856	30.3 %	27,066	25.8 %	28,790	106.4 %
Total	$ 184,258	100.0 %	$ 105,109	100.0 %	$ 79,149	75.3 %

Revenue from product sales in international markets increased $28.8 million, or 106.4%, to $55.9 million in the three months ended June 30, 2021, from $27.1 million in the three months ended June 30, 2020. Revenue from international sales represented 30.3% and 25.8% of our total revenue for the three months ended June 30, 2021 and 2020, respectively.

Gross Margin

	Three Months Ended June 30,		Change	
	2021	2020	$	%
	(in thousands, except for percentages)			
Cost of revenue	$ 65,572	$ 40,179	$ 25,393	63.2 %
Gross profit	$ 118,686	$ 64,930	$ 53,756	82.8 %
Gross margin %	64.4 %	61.8 %		

Gross margin increased 2.6 percentage points to 64.4% in the three months ended June 30, 2021, from 61.8% in the three months ended June 30, 2020. Gross margin is impacted by our ability to scale production capacity to support our expanding portfolio of products as well as our continued investments in COVID-19 related safety measures.

Research and Development ("R&D")

	Three Months Ended June 30,		Change	
	2021	2020	$	%
	(in thousands, except for percentages)			
R&D	$ 17,738	$ 22,725	$ (4,987)	(21.9) %
R&D as a percentage of revenue	*9.6 %*	*21.6 %*		

R&D expenses decreased by $5.0 million, or 21.9%, to $17.7 million in the three months ended June 30, 2021, from $22.7 million in the three months ended June 30, 2020. The decrease was primarily due to a $5.1 million decrease in product development and testing costs, partially offset by a $2.3 million increase in personnel-related expenses driven by an increase in headcount to support our growth.

We have made investments, and plan to continue to make investments, in the development of our products, which may include hiring additional research and development employees. 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	
	2021	2020	$	%
	(in thousands, except for percentages)			
SG&A	$ 90,636	$ 59,854	$ 30,782	51.4 %
SG&A as a percentage of revenue	*49.2 %*	*56.9 %*		

SG&A expenses increased by $30.8 million, or 51.4%, to $90.6 million in the three months ended June 30, 2021, from $59.9 million in the three months ended June 30, 2020. The increase was primarily due to a $20.2 million increase in personnel-related expenses driven by an increase in headcount and related expenses to support our growth, a $4.2 million increase in cost related to marketing events, and a $3.6 million increase in travel-related expenses as most domestic travel and other in-person activities returned to pre-COVID-19 levels in the current period.

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 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 in infrastructure to support the business.

Provision for/(Benefit from) from Income Taxes

	Three Months Ended June 30,		Change	
	2021	2020	$	%
	(in thousands, except for percentages)			
Provision for (benefit from) income taxes	$ 1,904	$ (4,129)	$ 6,033	(146.1) %
Effective tax rate	*18.7 %*	*24.2 %*		

Our provision for income taxes was $1.9 million for the three months ended June 30, 2021, 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 benefit from income taxes was $4.1 million for the three months ended June 30, 2020, which was primarily due to tax benefits attributable to our worldwide losses as a result of the COVID-19 pandemic impact, combined with excess tax benefits from stock-based compensation attributable to our U.S. jurisdiction. The effective tax rate was 18.7% for the three months ended June 30, 2021, compared to 24.2% for the three months ended June 30, 2020. Our change in effective tax rate was primarily attributable to small tax expenses over relatively large worldwide profits for the three months ended June 30, 2021, when compared to large tax benefits over relatively small worldwide losses for the three months ended June 30, 2020.

Six Months Ended June 30, 2021 Compared to the Six Months Ended June 30, 2020

Revenue

	Six Months Ended June 30,		Change	
	2021	2020	$	%
	(in thousands, except for percentages)			
Vascular	$ 189,849	$ 105,525	$ 84,324	79.9 %
Neuro	163,613	136,913	26,700	19.5 %
Total	$ 353,462	$ 242,438	$ 111,024	45.8 %

Revenue increased $111.0 million, or 45.8%, to $353.5 million in the six months ended June 30, 2021, from $242.4 million in the six months ended June 30, 2020. Overall revenue growth is primarily due to an increase in sales of new and existing products within our vascular and neuro businesses, as well as a higher number of elective procedures performed as COVID-19 vaccination rates increased. Given the current state of vaccinations and the spread of new variants of the virus, it is possible that the increase in elective cases will begin to normalize in future quarters.

Revenue from our vascular products increased $84.3 million, or 79.9%, to $189.8 million in the six months ended June 30, 2021, from $105.5 million in the six months ended June 30, 2020. This increase was driven by sales of our vascular thrombectomy products and peripheral embolization products, which globally increased by 107.8% and 49.3%, respectively, in the six months ended June 30, 2021. These increases were primarily due to higher sales volume as a result of sales of new products, further market penetration of our existing products, and an increase in the number of elective procedures performed. Prices for our vascular products remained substantially unchanged during the period.

Revenue from our neuro products increased $26.7 million, or 19.5%, to $163.6 million in the six months ended June 30, 2021, from $136.9 million in the six months ended June 30, 2020. This increase in revenue from our neuro products was primarily attributable to increased revenue in China, sales of new products, and further market penetration of our existing products. This increase was driven by an increase in sales of our neuro access products, neuro embolization products and neuro thrombectomy products which globally increased by 62.7%, 18.2% and 4.0%, respectively, in the six months ended June 30, 2021. Prices for our neuro 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, 2021 and 2020:

	Six Months Ended June 30,				Change	
	2021		2020		$	%
	(in thousands, except for percentages)					
United States	$ 248,472	70.3 %	$ 173,817	71.7 %	$ 74,655	43.0 %
International	104,990	29.7 %	68,621	28.3 %	36,369	53.0 %
Total	$ 353,462	100.0 %	$ 242,438	100.0 %	$ 111,024	45.8 %

Revenue from sales in international markets increased $36.4 million, or 53.0%, to $105.0 million in the six months ended June 30, 2021, from $68.6 million in the six months ended June 30, 2020. Revenue from international sales represented 29.7% and 28.3% of our total revenue for the six months ended June 30, 2021 and 2020, respectively.

Gross Margin

	Six Months Ended June 30,		Change	
	2021	2020	$	%
	(in thousands, except for percentages)			
Cost of revenue	$ 123,439	$ 89,499	$ 33,940	37.9 %
Gross profit	$ 230,023	$ 152,939	$ 77,084	50.4 %
Gross margin %	65.1 %	63.1 %		

Gross margin increased 2.0 percentage points to 65.1% in the six months ended June 30, 2021, from 63.1% in the six months ended June 30, 2020. Gross margin is impacted by our ability to scale production capacity to support our expanding portfolio of products as well as our continued investments in COVID-19 related safety measures.

Research and Development ("R&D")

	Six Months Ended June 30,		Change	
	2021	2020	$	%
	(in thousands, except for percentages)			
R&D	$ 35,814	$ 35,671	$ 143	0.4 %
R&D as a percentage of revenue	*10.1 %*	*14.7 %*		

R&D expenses increased by $0.1 million, or 0.4%, to $35.8 million in the six months ended June 30, 2021, from $35.7 million in the six months ended June 30, 2020. The increase was primarily due to a $4.0 million increase in personnel-related expenses, partially offset by a $4.0 million decrease in product development and testing costs.

We have made investments, and plan to continue to make investments, in the development of our products, which may include hiring additional research and development employees. 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	
	2021	2020	$	%
	(in thousands, except for percentages)			
SG&A	$ 170,434	$ 134,307	$ 36,127	26.9 %
SG&A *as a percentage of revenue*	*48.2 %*	*55.4 %*		

SG&A expenses increased by $36.1 million, or 26.9%, to $170.4 million in the six months ended June 30, 2021, from $134.3 million in the six months ended June 30, 2020. The increase was primarily due to a $29.3 million increase in personnel-related expense driven by an increase in headcount and related expenses to support our growth, a $2.3 million increase in travel-related expenses, and a $1.7 million increase in cost related to marketing events as most domestic travel and other in-person activities returned to pre-COVID-19 levels in the current period.

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 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 in infrastructure to support the business.

Provision For (Benefit from) Income Taxes

	Six Months Ended June 30,		Change	
	2021	2020	$	%
	(in thousands, except for percentages)			
Provision for (benefit from) income taxes	$ 3,445	$ (5,763)	$ 9,208	(159.8) %
Effective tax rate	*15.2 %*	*32.4 %*		

Our provision for income taxes was $3.4 million for the six months ended June 30, 2021, 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 benefit from income taxes was $5.8 million for the six months ended June 30, 2020, which was primarily due to tax benefits attributable to our worldwide losses as a result of the COVID-19 pandemic impact, combined with excess tax benefits from stock-based compensation attributable to our U.S. jurisdiction. The effective tax rate was 15.2% for the six months ended June 30, 2021, compared to 32.4% for the six months ended June 30, 2020. Our change in effective tax rate was primarily attributable to small tax expenses over relatively large worldwide profits for the six months ended June 30, 2021, when compared to large tax benefits over relatively small worldwide losses for the six months ended June 30, 2020.

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 attributable to our worldwide profit or tax benefit attributable to our worldwide losses, and (3) discrete tax adjustments such as excess tax benefits related to stock-based compensation. Our income tax provision is subject to volatility as the amount of excess tax benefits 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 with fluctuations in our effective tax rate.

Liquidity and Capital Resources

As of June 30, 2021, we had $545.1 million in working capital, which included $82.3 million in cash and cash equivalents and $156.7 million in marketable investments. As of June 30, 2021, we held approximately 18.8% of our cash and cash equivalents in foreign entities.

In June 2020, we issued and sold an aggregate of 865,963 shares of our common stock at a public offering price of $166.00 per share, less the underwriters' discounts and commissions, pursuant to an underwritten public offering. We received approximately $134.8 million in net cash proceeds from the offering after deducting underwriting discounts and commissions of $8.6 million and other offering expenses of $0.4 million. We intend to use the net proceeds from the offering for general corporate purposes, including working capital, continued development of our products, including research and development and clinical trials, potential acquisitions and other business opportunities. Pending the use of the net proceeds from the offering, we are investing the net proceeds in investment grade, interest bearing securities.

In addition to our existing cash and cash equivalents and marketable investment balances, our principal source of liquidity is our accounts receivable. In order to further strengthen our liquidity position and financial flexibility during the COVID-19 pandemic, on April 24, 2020 we entered into a Credit Agreement (the "Credit Agreement") with JPMorgan Chase Bank, N.A., as administrative agent and lender, and Bank of America, N.A. and Citibank, N.A. as lenders. The Credit Agreement is secured and provides for up to $100 million in available revolving borrowing capacity with an option, subject to certain conditions, for us to increase the aggregate borrowing capacity to up to $150 million, and was set to mature on April 23, 2021. During the three months ended March 31, 2021, we entered into an amended one-year credit agreement with JPMorgan Chase Bank, N.A., as administrative agent and lender, and Bank of America, N.A. and Citibank, N.A. as lenders. The amended Credit Agreement extended the maturity date from April 23, 2021 to February 21, 2022 and has substantially the same terms and conditions as the prior credit agreement with certain changes including the exclusion of certain one-time charges and expenses incurred during the fiscal quarters ended September 30, 2020 and December 31, 2020 from the calculation of the financial covenants, reductions in interest rate floors applicable to revolving loans and other changes to borrowing mechanics under the Credit Agreement. See Note "7. Indebtedness" to our condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information.

We believe our 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, could result in changes to our capital structure, and could require us to agree to covenants that limit our operating flexibility.

While we have strengthened our liquidity position, we cannot reliably estimate the extent to which the COVID-19 pandemic may impact our cash flow from operations in the third quarter and beyond.

The following table summarizes our cash and cash equivalents, marketable investments and selected working capital data as of June 30, 2021 and December 31, 2020:

	June 30, 2021	December 31, 2020
	(in thousands)	
Cash and cash equivalents	$ 82,277	$ 69,670
Marketable investments	156,722	195,162
Accounts receivable, net	136,610	114,608
Accounts payable	13,712	14,109
Accrued liabilities	86,503	85,795
Working capital[1]	545,066	511,770

(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,	
	2021	2020
	(in thousands)	
Cash and cash equivalents and restricted cash at beginning of period	$ 69,670	$ 72,779
Net cash used in operating activities	(17,678)	(27,609)
Net cash provided by (used in) investing activities	29,435	(44,507)
Net cash provided by financing activities	559	134,111
Cash and cash equivalents and restricted cash at end of period	82,277	134,381

Net Cash Used In Operating Activities

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

Net cash used in operating activities was $17.7 million during the six months ended June 30, 2021 and consisted of consolidated net income of $19.2 million and non-cash items of $29.1 million, offset by net changes in operating assets and liabilities of $66.0 million. The change in operating assets and liabilities includes an increase in inventories of $41.5 million to support our growth, an increase in accounts receivable of $22.9 million, and an increase in prepaid expenses and other current and non-current assets of $5.8 million. This was partially offset by an increase in accrued expenses and other non-current liabilities of $5.0 million.

Net cash used in operating activities was $27.6 million during the six months ended June 30, 2020 and consisted of consolidated net loss of $12.0 million and net changes in operating assets and liabilities of $34.5 million, offset by non-cash items of $18.9 million. The change in operating assets and liabilities includes an increase in inventories of $31.9 million, and an increase in prepaid expenses and other current and non-current assets of $4.3 million. This was partially offset by a decrease in accounts receivable of $6.8 million and other non-current liabilities of $5.1 million.

Net Cash Provided By (Used In) Investing Activities

Net cash provided by (used in) investing activities relates primarily to proceeds from maturities and sales of marketable investments, net of purchases, and capital expenditures.

Net cash provided by investing activities was $29.4 million during the six months ended June 30, 2021 and primarily consisted of proceeds from maturities and sales of marketable investments, net purchases, of $36.9 million, partially offset by capital expenditures of $7.3 million.

Net cash used in investing activities was $44.5 million during the six months ended June 30, 2020 and consisted of purchases of marketable investments, net of proceeds from maturities and sales, of $25.6 million, and capital expenditures of $16.9 million.

Net Cash Provided By Financing Activities

Net cash provided by financing activities primarily relates to payments of employee taxes related to vested restricted stock units, payments towards the reduction of our finance lease obligations and certain acquisition-related payments, and proceeds from exercises of stock options and issuance of common stock.

Net cash provided by financing activities was $0.6 million during the six months ended June 30, 2021 and primarily consisted of proceeds from the issuance of common stock under our employee stock purchase plan of $7.4 million and proceeds from exercises of stock options of $1.0 million. This was partially offset by $7.0 million of payments of employee taxes related to vested restricted stock and restricted stock units and $0.7 million in payments towards finance leases.

Net cash provided by financing activities was $134.1 million during the six months ended June 30, 2020 and primarily consisted of proceeds from the issuance of common stock net of issuance cost of $134.8 million, proceeds from the issuance of common stock under our employee stock purchase plan of $5.9 million, and proceeds from exercises of stock options of $1.2 million. This was partially offset by $3.9 million of payments of employee taxes related to vested restricted stock and restricted stock units, $3.0 million in payments towards finance leases, and $0.7 million related to contingent consideration payments made in the first quarter of 2020 in connection with our acquisition of Crossmed S.p.a. in 2017.

Contractual Obligations and Commitments

On September 3, 2019, we entered into a lease of certain property in the Harbor Bay Business Park in Alameda, California,(the “1310 Harbor Bay Lease”) for a fifteen year term which commenced during the three months ended June 30, 2021. The fixed lease payments for base rent total approximately $3.5 million in the first year of the 1310 Harbor Bay Lease, including a two-month rent abatement period during the first year. The total estimated lease payments over the fifteen year lease term are approximately $77 million. We have the option to renew the lease for an additional five, ten or fifteen years.

During the three months ended June 30, 2021, we entered into a $7.3 million non-cancelable supply agreement to purchase a fixed amount of materials used in our manufacturing process.

There have been no other material changes to our contractual obligations and commitments as of June 30, 2021 from those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2020.

Off-Balance Sheet Arrangements

We do not have any significant off-balance sheet arrangements or holdings in variable interest entities.

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, 2020.

Recently Issued Accounting Standards

For information with respect to recently issued accounting standards and the impact of these standards on our condensed consolidated financial statements, see 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 $82.3 million as of June 30, 2021, which consisted of funds held in money market funds, general checking and savings accounts. In addition, we had marketable investments of $156.7 million, which consisted primarily of commercial paper, corporate bonds, U.S. agency and government sponsored securities, 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. The revolving loans under our Credit Agreement bear interest at: 1) the adjusted LIBO rate or adjusted EURIBO rate, as applicable, plus an applicable rate, for euro currency revolving borrowing; or 2) an alternate base rate plus an applicable rate, for revolving borrowing in U.S. Dollars. As of June 30, 2021, there were no borrowings outstanding under the Credit Agreement. 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 euro and Japanese yen, with some sales being denominated in other currencies. We expect that the percentage of our sales denominated in foreign currencies may increase in the foreseeable future as we continue to expand into international markets. 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 attributable to Penumbra, Inc. 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.

We do not believe that inflation and changes in prices had a significant impact on our results of operations as of and for the period ended June 30, 2021.

ITEM 4. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

An evaluation as of June 30, 2021 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 Rule 13a-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 Securities and Exchange Commission'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 (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) were effective at June 30, 2021.

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, 2021 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 and, as set forth above, our principal executive officer and principal financial officer have concluded, based on their evaluation as of the end of the period covered by this report, that our disclosure controls and procedures were effective to provide reasonable assurance that the objectives of our disclosure control system were 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 factors identified since the filing of, our Annual Report on Form 10-K for the year ended December 31, 2020, which was filed with the SEC on February 23, 2021.

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.

None.

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, 2021 formatted in Inline Extensible Business Reporting Language (iXBRL) includes: (i) Condensed Consolidated Balance Sheets as of June 30, 2021 and December 31, 2020, (ii) Condensed Consolidated Statements of Operations for the three and six months ended June 30, 2021 and 2020, (ii) Condensed Consolidated Statements of Comprehensive Income (Loss) for the three and six months ended June 30, 2021 and 2020, (iii) Condensed Consolidated Statements of Stockholders' Equity for the three and six months ended June 30, 2021 and 2020, (iv) Condensed Consolidated Statements of Cash Flows for the six months ended June 30, 2021 and 2020, 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).				

* Filed herewith.

** 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: August 9, 2021

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: August 9, 2021

/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: August 9, 2021

/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, 2021, 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: August 9, 2021