UNITED STATES SECURITIES AND EXCHANGE COMMISSION

	Washington, D.C. 20549	51V	
	FORM 10-Q	_	
☑ QUARTERLY REPORT PURSUAN	TT TO SECTION 13 OR 15(d) OF THE SECURITIES EXC	 CHANGE ACT OF 1934	
	For the quarterly period ended September 30, 2023		
	OR		
☐ TRANSITION REPORT PURSUAN	TT TO SECTION 13 OR 15(d) OF THE SECURITIES EX	CHANGE ACT OF 1934	
	For the transition period from to		
	Commission File Number 0-19437		
	ASENSUS SURGICAL, INC.	_	
	(Exact name of registrant as specified in its charter)		
Delaware (State or other juriso incorporation or orga		11-2962080 (I.R.S. Employer Identification No.)	
	1 TW Alexander Drive, Suite 160, Durham, NC 27703 (Address of principal executive offices) (Zip Code)	l .	
Re	egistrant's telephone number, including area code: (919) 76	55-8400	
	ant (1) has filed all reports required to be filed by Section 13 ch shorter period that the registrant was required to file such No \square .		
	ant has submitted electronically every Interactive Data File r during the preceding 12 months (or for such shorter period that		
	ant is a large accelerated filer, an accelerated filer, a non-accelerated of "large accelerated filer," "accelerated filer," "smallct.		
Large accelerated filer \square Non-accelerated filer \boxtimes		Accelerated Filer Smaller reporting company Emerging Growth Company	
	γ check mark if the registrant has elected not to use the extended pursuant to Section 13(a) of the Exchange Act. \square	led transition period for complying with	any new
Indicate by check mark whether the registral	nt is a shell company (as defined in Rule 12b-2 of the Exchang	ge Act) Yes □ No ⊠	
Securities registered pursuant to Section 12(b) of the Act:		
Title of each class	Trading symbol	Name of each exchange on which re	gistered
Common Stock \$0.001 par value per share	ASXC	NYSE American	
The number of shares outstanding of the reg	istrant's common stock, as of November 10, 2023 was 264,310	5,749.	

ASENSUS SURGICAL, INC.

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PART 1. FINANCIAL INFORMATION

Item 1. Financial Statements

Asensus Surgical, Inc. Condensed Consolidated Statements of Operations and Comprehensive Loss (in thousands, except per share amounts) (unaudited)

	Three Months Ended September 30,					Ended 30,		
		2023		2022		2023		2022
Revenue:								,
Product	\$	301	\$	1,964	\$	892	\$	2,565
Service		295		335		779		1,067
Lease		493		264		1,475		991
Total revenue		1,089		2,563		3,146		4,623
Cost of revenue:								
Product		1,171		3,057		4,008		4,316
Service		581		365		1,849		1,506
Lease		1,117		982		3,033		2,752
Total cost of revenue		2,869		4,404		8,890		8,574
Gross loss	·	(1,780)		(1,841)		(5,744)		(3,951)
		(, ,		() /		(,,,		
Operating expenses:								
Research and development		9,290		6,741		28,409		20,422
Sales and marketing		4,138		3,615		13,140		10,936
General and administrative		4,571		4,853		15,163		15,378
Amortization of intangible assets		114		2,398		340		7,601
Change in fair value of contingent consideration		366		(416)		674		(1,168)
Impairment of property and equipment						-		432
Total operating expenses		18,479		17,191		57,726		53,601
Operating loss		(20,259)		(19,032)		(63,470)		(57,552)
Other income (expense), net								
Change in fair value of warrant liabilities		2,278		_		2,278		_
Interest income		406		291		1,276		806
Interest expense		-		(99)		-		(440)
Other expense, net		(686)		(29)		(1,146)		(261)
Total other income, net		1,998		163		2,408		105
Loss before income taxes		(18,261)		(18,869)		(61,062)		(57,447)
Income tax expense		57		55		136		224
Net loss		(18,318)		(18,924)		(61,198)		(57,671)
Net loss per common share attributable to common stockholders - basic and diluted	\$	(0.07)	\$	(0.08)	\$	(0.25)	\$	(0.24)
Weighted average number of shares used in computing net loss per common share - basic and diluted		256,184		236,713		244,744		236,373
Comprehensive loss:								
Net loss		(18,318)		(18,924)		(61,198)		(57,671)
Foreign currency translation (loss) gain		(640)		(1,655)		84		(4,018)
Unrealized gain (loss) on available-for-sale investments		67		86		473		(610)
Comprehensive loss	\$	(18,891)	\$	(20,493)	\$	(60,641)	\$	(62,299)

See accompanying notes to unaudited condensed consolidated financial statements.

Asensus Surgical, Inc. Condensed Consolidated Balance Sheets (in thousands, except for share data) (unaudited)

	Sep	tember 30, 2023	December 31, 2022		
Assets					
Current Assets:					
Cash and cash equivalents	\$	21,669	\$	6,329	
Short-term investments, available-for-sale		11,420		64,195	
Accounts receivable, net		662		2,256	
Inventory, net		6,683		8,284	
Prepaid expenses		4,174		3,584	
Employee retention tax credit receivable		-		554	
Other current assets		1,324		1,671	
Total Current Assets		45,932		86,873	
Restricted cash		1,615		1,141	
Long-term investments, available-for-sale		-,		3,865	
Inventory, net of current portion		5,640		5,469	
Property and equipment, net		9,237		9,542	
Intellectual property, net		1,278		1,576	
Deferred tax assets, net		150		174	
Operating lease right-of-use assets, net		5,004		4,950	
Other noncurrent assets		1,871		2,463	
Total Assets	\$	70,727	\$	116,053	
Total Assets	Ψ	70,727	Ψ	110,000	
Liabilities and Stockholders' Equity					
Current Liabilities:					
Accounts payable	\$	4,526	\$	3,348	
Accrued employee compensation and benefits		4,967		4,508	
Accrued expenses and other current liabilities		1,258		1,293	
Operating lease liabilities, current		916		800	
Deferred revenue		456		465	
Total Current Liabilities		12,123		10,414	
Long-Term Liabilities:					
Warrant liabilities		4,842		-	
Contingent consideration		1,930		1,256	
Operating lease liabilities, noncurrent		4,579		4,738	
Total Liabilities		23,474		16,408	
Stockholders' Equity:					
Common stock \$0.001 par value, 750,000,000 shares authorized at September 30, 2023 and December					
31, 2022; 264,111,257 and 236,895,440 issued and outstanding at September 30, 2023 and December 31,					
2022, respectively		264		237	
Preferred stock, \$0.01 par value, 25,000,000 shares authorized, no shares issued and outstanding at September 30, 2023 and December 31, 2022					
Additional paid-in capital		970,952		962,731	
Accumulated deficit		(922,133)		(860,935)	
Accumulated other comprehensive loss		(1,830)		(2,388)	
1		47,253		99,645	
Total Stockholders' Equity	¢	70,727	¢	116,053	
Total Liabilities and Stockholders' Equity	\$	/0,/2/	\$	116,053	

 $See\ accompanying\ notes\ to\ unaudited\ condensed\ consolidated\ financial\ statements.$

Asensus Surgical, Inc. Condensed Consolidated Statements of Changes in Stockholders' Equity (in thousands) (unaudited)

	Commo	n Stock	Treasu	ry Stock		Additional Paid- Accumulated		Accumulated Other Comprehensive nulated Income			Total ockholders'	
	Shares	Amount	Shares	Amount		in Capital		Deficit		(Loss)		Equity
Balance, December 31, 2022	236,895	\$ 237	-	\$ -	\$		\$	(860,935)	\$	(2,388)	\$	99,645
Stock-based compensation	-	-	-	-		1,916		-		-		1,916
Exercise of stock options	13	-	-	-		5		-		-		5
Issuance of common stock												
related to vesting of restricted												
stock units	2,434	2	-	-		-		-		-		2
Shares withheld related to net												
share settlement of equity			640	1		(400)						(490)
awards Cancellation of treasury stock	-	-	649 (649)	1 (1)		(490)		-		-		(489)
Other comprehensive income	-	-	(049)	(1)		-		-		857		(1) 857
Net loss	_	_	_	_		_		(22,218)		-		(22,218)
Balance, March 31, 2023	239,342	239	_	\$ -	\$		\$	(883,153)	\$	(1,531)	\$	79,717
Stock-based compensation	-	-	_	-	Ψ	1,978	Ψ	-	4	(1,551)	Ψ	1,978
Issuance of common stock						_,						_,
related to vesting of restricted												
stock units	273	-	-	-		-		-		-		-
Issuance of common stock, net												
of issuance costs	355	1	-	-		195		-		-		196
Other comprehensive income	-	-	-	-		-		-		274		274
Net loss	-	-	-	-		-		(20,662)		-		(20,662)
Balance, June 30, 2023	239,970	\$ 240	-	\$ -	\$		\$	(903,815)	\$	(1,257)	\$	61,503
Stock-based compensation	-	-	-	-		2,019		-		-		2,019
Issuance of common stock												
related to vesting of restricted	0.50											
stock units	253	-	-	-		-		-		-		-
Shares withheld related to net												
share settlement of equity			0			(7)						
awards Cancellation of treasury stock	-	-	8 (8)	-		(7)		-		-		-
Issuance of common stock, net	-	-	(0)	-		-		-		-		-
of issuance costs	23,888	24	_	_		2,598		_		_		2,622
Other comprehensive income	-	-	_	_		-		_		(573)		(573)
Net loss	-	-	-	-		-		(18,318)		-		(18,318)
Balance, September 30, 2023	264,111	\$ 264	-	\$ -	\$	970,952	\$	(922,133)	\$	(1,830)	\$	47,253
Balance, December 31, 2021	235,219	\$ 235	-	\$ -	\$	954,649	\$	(785,374)	\$	(264)	\$	169,246
Stock-based compensation	-	-	-	-		2,245		-		-		2,245
Exercise of stock options	30	-	-	-		12		-		-		12
Issuance of common stock												
related to vesting of restricted												
stock units	1,166	1	-	-		-		-		-		1
Shares withheld related to net												
share settlement of equity			42.0			(2.40)						(2.40)
awards	-	-	436	-		(349)		-		-		(349)
Cancellation of treasury stock	-	-	(436)	-		-		-		(1.202)		(1.202)
Other comprehensive loss Net loss	-	-	-	-		-		(19,128)		(1,202)		(1,202) (19,128)
Balance, March 31, 2022	236,415	\$ 236	<u> </u>	\$ -	\$		\$	(804,502)	\$	(1,466)	\$	150,825
Stock-based compensation	230,413	ф 230	_	φ - -	φ	2,083	Ф	(004,302)	φ	(1,400)	Ψ	2,083
Exercise of stock options	13	_	_			2,003		_				2,005
Issuance of common stock	15					J						J
related to vesting of restricted												
stock units	192	1	-	-		-		-		-		1
Other comprehensive loss	=	-	-	-		-		-		(1,857)		(1,857)
Net loss	-	-	-	-		-		(19,619)		-		(19,619)
Balance, June 30, 2022	236,620	\$ 237	-	\$ -	\$	958,646	\$	(824,121)	\$	(3,323)	\$	131,439
Stock-based compensation	-	-	-	-		2,033		-		-		2,033
Issuance of common stock												
related to vesting of restricted												
stock units	163	-	-	-		-		-		-		-
Shares withheld related to net												
share settlement of equity												
awards	-	-	7	-		(3)		-		-		(3)
Cancellation of treasury stock	-	-	(7)	-		-		-		=		-
Other comprehensive loss	-	-	-	-		-		- (40.00.4)		(1,569)		(1,569)
Net loss	-	-	-	-		-		(18,924)		-		(18,924)

Balance, September 30, 2022 236,783 \$ 237 - \$ - \$ 960,676 \$ (843,045) \$ (4,892) \$ 112,976

 $See\ accompanying\ notes\ to\ unaudited\ condensed\ consolidated\ financial\ statements.$

Asensus Surgical, Inc. Condensed Consolidated Statements of Cash Flows (in thousands) (Unaudited)

	Niı	Nine Months Ended Sep		
		2023	2022	
Cash Flows from Operating Activities:	ф	(C1 100) d	(55.654)	
Net loss	\$	(61,198) \$	(57,671)	
Adjustments to reconcile net loss to net cash and cash equivalents used in operating activities:		2.405	2.401	
Depreciation Association (interest) because		2,405	2,481	
Amortization of intangible assets		340	7,601	
Amortization of discounts and premiums on investments, net		(454)	556	
Stock-based compensation		5,913	6,361	
Deferred tax expense		136	224	
Bad debt expense			9	
Change in inventory reserves		297	386	
Property and equipment impairment			432	
Loss on disposal of property and equipment			97	
Change in fair value of warrant liabilities		(2,278)		
Change in fair value of contingent consideration		674	(1,168)	
Changes in operating assets and liabilities:				
Accounts receivable		1,587	(1,735)	
Inventory		536	(535)	
Operating lease right-of-use assets		(142)	237	
Prepaid expenses		(590)	(693)	
Employee retention tax credit receivable		554	164	
Other current and long-term assets		310	(2,123)	
Accounts payable		1,236	449	
Accrued employee compensation and benefits		566	236	
Accrued employee compensation and benefits Accrued expenses and other current liabilities		(97)	250	
Deferred revenue			(139)	
		(5)		
Operating lease liabilities		(43)	(53)	
Net cash and cash equivalents used in operating activities		(50,253)	(44,884)	
Cash Flows from Investing Activities:				
Purchase of available-for-sale investments		(12,268)	(25,588)	
Proceeds from maturities of available-for-sale investments		69,835	67,702	
Purchase of property and equipment		(488)	(904)	
Net cash and cash equivalents provided by investing activities		57,079	41,210	
Cash Flows from Financing Activities:				
Proceeds from issuance of common stock and warrants, net of issuance costs		9,946	-	
Taxes paid related to net share settlement of vesting of restricted stock units		(497)	(350)	
Proceeds from exercise of stock options		5	18	
Net cash and cash equivalents provided by (used in) financing activities	·	9,454	(332)	
		(466)	(200)	
Effect of exchange rate changes on cash and cash equivalents		(466)	(300)	
Net increase (decrease) in cash, cash equivalents and restricted cash		15,814	(4,306)	
Cash, cash equivalents and restricted cash, beginning of period	<u> </u>	7,470	19,283	
Cash, cash equivalents and restricted cash, end of period	\$	23,284 \$	14,977	
Supplemental Disclosure for Cash Flow Information				
Cash paid for leases	\$	1,067 \$	729	
Cash paid for taxes	-	230 \$	79	
Supplemental Schedule of Non-cash Investing and Financing Activities:				
Transfer of inventory to property and equipment	\$	2,227 \$	1,293	
Lease liabilities arising from obtaining right-of-use assets	\$	796 \$	316	
bease masmates arising from obtaining right-or-use assets	Ψ	/ JU \$	510	

 $See\ accompanying\ notes\ to\ unaudited\ condensed\ consolidated\ financial\ statements.$

Asensus Surgical, Inc. Notes to Condensed Consolidated Financial Statements (Unaudited)

1. Description of Business

Asensus Surgical, Inc. (the "Company") is a medical device company that is digitizing the interface between the surgeon and the patient to pioneer a new era of Performance-Guided SurgeryTM by unlocking clinical intelligence for surgeons to enable consistently superior outcomes and a new standard of surgery. Based upon the foundations of digital laparoscopy and the Senhance® Surgical System, the Company is developing the LUNATM Surgical System, a next generation robotic and instrument system as a foundation of its digital surgery solution. These systems will be powered by the Intelligent Surgical UnitTM (ISUTM) to increase surgeon's control and reduce variability of surgical outcomes. With the addition of machine vision, augmented intelligence, and deep learning capabilities throughout the surgical experience, the Company intends to holistically address the current clinical, cognitive, and economic shortcomings that drive surgical outcomes and value-based healthcare. The Company continues market development for and commercialization of the Senhance System, which digitizes laparoscopic minimally invasive surgery, or MIS. The Senhance System is the first and only digital, multi-port laparoscopic platform designed to maintain laparoscopic MIS standards while providing digital benefits such as haptic feedback, robotic precision, comfortable ergonomics, advanced instrumentation including 3mm microlaparoscopic instruments, 5mm articulating instruments, eye-sensing camera control and fully reusable standard instruments to help maintain per-procedure costs similar to traditional laparoscopy.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited interim condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") and include the accounts of the Company and its direct and indirect wholly owned subsidiaries. All inter-company accounts and transactions have been eliminated in consolidation. The results reported in these unaudited interim condensed consolidated financial statements should not be regarded as necessarily indicative of results that may be expected for any subsequent period or for the entire year. These unaudited condensed consolidated financial statements and notes thereto should be read in conjunction with the Company's audited consolidated financial statements and the notes thereto included in the Fiscal Year 2022 Form 10-K. Certain information and footnote disclosures normally included in the annual consolidated financial statements prepared in accordance with U.S. GAAP have been condensed or omitted in the accompanying interim condensed consolidated financial statements. In the opinion of the Company's management, the accompanying unaudited condensed consolidated financial statements contain all adjustments, consisting only of normal recurring adjustments, except as otherwise indicated, necessary for a fair statement of its financial position, results of operations, and cash flows of the Company for all periods presented.

Going Concern

The Company's condensed consolidated financial statements are prepared using U.S. GAAP applicable to a going concern basis of accounting, which contemplates the realization of assets and liquidation of liabilities in the normal course of business. The Company had an accumulated deficit of \$922.1 million and working capital of \$33.8 million as of September 30, 2023. The Company has not established sufficient sales revenues to cover its operating costs and requires additional capital to proceed with its operating plan. The ability of the Company to continue as a going concern is dependent on the Company obtaining adequate capital to fund operating losses until it becomes profitable.

The Company will need to obtain additional financing to execute its business plan. Management's plans to obtain additional resources for the Company may include additional sales of equity, traditional financing, such as loans, entry into strategic collaborations, entry into an out-licensing arrangement or provision of additional distribution rights in some or all of its markets. However, management cannot provide any assurance that the Company will be successful in accomplishing any or all of its plans. The ability to successfully resolve these factors raises substantial doubt about the Company's ability to meet its existing obligations, and to continue as a going concern for one year from the date that these financial statements are issued. The condensed consolidated financial statements of the Company do not include any adjustments that may result from the outcome of these aforementioned uncertainties.

Principles of Consolidation

The accompanying condensed consolidated financial statements include the accounts of the Company and its direct and indirect wholly owned subsidiaries, Asensus Surgical US, Inc., Asensus International, Inc., Asensus Surgical Italia S.r.l., Asensus Surgical Europe S.à r.l., Asensus Surgical Taiwan Ltd., Asensus Surgical Japan K.K., Asensus Surgical Israel Ltd., Asensus Surgical Netherlands B.V., and Asensus Surgical Canada, Inc. All inter-company accounts and transactions have been eliminated in consolidation.

Risk and Uncertainties

The Company is subject to risks similar to other similarly sized companies in the medical device industry. These risks include, without limitation: the historical lack of profitability; the Company's ability to raise additional capital; its ability to successfully develop, clinically test, obtain regulatory clearance for and commercialize its products and products in development; negative impacts on the Company's operations caused by the hostilities in the Middle East, the COVID-19 pandemic and other geopolitical factors; the success of its market development efforts; the timing and outcome of the regulatory review process for its products in development; changes in the healthcare regulatory environments of the United States, the European Union, Japan, Taiwan, and other countries in which the Company operates or intends to operate; its ability to attract and retain key management, marketing and scientific personnel; its ability to successfully prepare, file, prosecute, maintain, defend and enforce patent claims and other intellectual property rights; its ability to successfully transition from a research and development company to a marketing, sales and distribution company; competition in the market for robotic surgical devices; and its ability to identify and pursue development of additional products.

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 and liabilities and the 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. Actual results could differ from those estimates. Significant items subject to such estimates and assumptions include impairment considerations for long-lived assets, fair value estimates related to contingent consideration, stock-based compensation expense, revenue recognition, short-term and long-term investments, excess and obsolete inventory reserves, inventory classification between current and non-current, measurement of lease liabilities and corresponding right-of-use ("ROU") assets, measurement of warrant liabilities and deferred tax asset valuation allowances.

Significant Accounting Policies

With the exception of the Company's warrant policy (please see next section), there have been no new or material changes to the significant accounting policies discussed in the Company's audited financial statements and the notes thereto included in the Fiscal Year 2022 Form 10-K.

Warrant Liabilities

The Company's warrants (see Note 12) are measured at fair value using a simulation model which takes into account, as of the valuation date, factors including the current exercise price, the expected life of the warrant, the current price of the underlying stock, its expected volatility, holding cost and the risk-free interest rate for the term of the warrant (see Note 4). The warrant liability is revalued at each reporting period and changes in fair value are recognized in the consolidated statements of operations and comprehensive loss. The selection of the appropriate valuation model and the inputs and assumptions that are required to determine the valuation requires significant judgment and requires management to make estimates and assumptions that affect the reported amount of the related liability and reported amounts of the change in fair value. Actual results could differ from those estimates, and changes in these estimates are recorded when known.

Impact of Recently Issued Accounting Standards

The Company has evaluated issued Accounting Standards Updates ("ASUs") not yet adopted and believes the adoption of these standards will not have a material impact on its consolidated financial statements.

3. Revenue Recognition

The following table presents revenue disaggregated by type and geography:

Three	Three Months Ended Contember 20			Nine Months Ended Sentember 30					
2	023		2022	2	023		2022		
\$	-	\$	-	\$	-	\$	-		
	71		60		169		142		
	77		75		228		225		
	40		46		130		211		
	188	-	181		527		578		
	-		1,227		-		1,228		
	230		677		723		1,195		
	218		260		551		842		
	453		218		1,345		780		
	901		2,382		2,619		4,045		
			,		,		,		
	-		1,227		-		1,228		
	301		737		892		1,337		
	295		335		779		1,067		
	493		264		1,475		991		
\$	1,089	\$	2,563	\$	3,146	\$	4,623		
	\$	2023 \$ - 71 77 40 188 - 230 218 453 901 - 301 295 493	\$ - \$ 71 77 40 188 - 230 218 453 901	\$ - \$ - \$ 71 60 77 75 40 46 188 181 - 1,227 230 677 218 260 453 218 901 2,382 - 1,227 301 737 295 335 493 264	2023 2022 2 \$ - \$ 71 60 60 77 75 40 40 46 181 - 1,227 230 230 677 218 218 260 453 218 218 901 2,382 218 218 301 737 295 335 493 264	2023 2022 2023 \$ - \$ - \$ - \$ - \$ - 71 60 169 77 75 228 40 46 130 188 181 527 - 230 677 723 218 260 551 453 218 1,345 901 2,382 2,619 - 1,227 - - 301 737 892 295 335 779 493 264 1,475	2023 2022 2023 \$ - \$ - \$ - \$ - \$ 71 60 169 77 75 228 40 46 130 188 181 527 - 230 677 723 218 260 551 453 218 1,345 901 2,382 2,619 - 1,227 - - 301 737 892 295 335 779 493 264 1,475		

Remaining Performance Obligations

The transaction price allocated to remaining performance obligations relates to amounts allocated to products and services for which the revenue has not yet been recognized. A significant portion of this amount relates to service obligations performed under the Company's system sales contracts that will be invoiced and recognized as revenue in future periods. The transaction price allocated to remaining performance obligations as of September 30, 2023 was \$0.7 million, which is expected to be recognized over one to four years.

Contract Assets and Liabilities

Deferred revenue for the periods presented was primarily related to service obligations, for which the service fees are billed up-front, generally annually. The associated deferred revenue is generally recognized ratably over the service period. The Company did not have any significant impairment losses on its contract assets (included in accounts receivable, net in the condensed consolidated balance sheets) for the periods presented.

Revenue recognized for the three months ended September 30, 2023 and 2022 that was included in the deferred revenue balance at the beginning of each reporting period was \$0.2 million. Revenue recognized for the nine months ended September 30, 2023 and 2022 that was included in the deferred revenue balance at the beginning of each reporting period was \$0.5 million and \$0.7 million, respectively.

The following information summarizes the Company's contract assets and liabilities:

	September 3	30, 2023	December 31	, 2022	December	31, 2021
(In thousands)						
Contract Assets	\$	54	\$	116	\$	91
Deferred Revenue	\$	456	\$	465	\$	543

Senhance System Leasing

The Company enters into lease arrangements with certain qualified customers. Revenue related to arrangements including lease elements are allocated to lease and non-lease elements based on their relative standalone selling prices. Lease elements generally include a Senhance System, while non-lease elements generally include instruments, accessories, and services. For some lease arrangements, the customers are provided with the right to purchase the leased Senhance System at some point during and/or at the end of the lease term. In some arrangements, lease payments are based on the usage of the Senhance System. For the three and nine months ended September 30, 2023, and 2022, variable lease revenue related to usage-based arrangements was not material.

Accounts Receivable

Accounts receivable are recorded at net realizable value, which includes an allowance for expected credit losses. The allowance for expected credit losses is based on the Company's assessment of the collectability of customer accounts. The Company regularly reviews the allowance by considering factors such as historical experience, credit quality, the age of the accounts receivable balances, and current economic conditions that may affect a customer's ability to pay. The allowance for expected credit losses was \$1.6 million as of September 30, 2023 and December 31, 2022. The Company recorded immaterial amounts for expected credit losses during the three and nine months ended September 30, 2023 and 2022.

The Company had four customers that accounted for 18%, 16%, 15% and 14%, respectively, of the Company's net accounts receivable as of September 30, 2023. The Company had one customer that accounted for 69% of the Company's net accounts receivable as of December 31, 2022.

4. Fair Value Measurements

The Company records certain assets and liabilities at fair value. Accounting Standards Codification ("ASC") 820 – Fair Value Measurement states that fair value is the price that would be received to sell an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date. As such, the fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. The three-tiered fair value hierarchy that prioritizes the inputs used in measuring fair value, is comprised of:

- 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 active markets for similar assets or liabilities;
- Level 3 Unobservable inputs that are supported by little or no market data, and that are significant to the fair value of the assets and liabilities.

As of September 30, 2023 and December 31, 2022, the Company's assets and liabilities measured at fair value on a recurring basis were as follows:

				September	r 30, 20	023						
(In thousands)	Level 1		Level 2		Level 3			Total				
Assets:												
Cash and cash equivalents (1)	\$	21,669	\$	-	\$	-	\$	21,669				
Restricted cash		1,615		-		-		1,615				
Short-term investments		-		11,420		-		11,420				
Total assets	\$	23,284	\$	11,420	\$		\$	34,704				
Liabilities:	<u> </u>											
Contingent consideration	\$	-	\$	-	\$	1,930	\$	1,930				
Warrant liabilities		-		-		4,842		4,842				
Total liabilities	\$	-	\$	_	\$	6,772	\$	6,772				

(1) Includes investments that are readily convertible to cash with original maturities of 90 days or less.

	December 31, 2022							
(In thousands)		Level 1		Level 2		Level 3		Total
Assets:								
Cash and cash equivalents (1)	\$	6,329	\$	-	\$	-	\$	6,329
Restricted cash		1,141		-		-		1,141
Short-term investments		-		64,195		-		64,195
Long-term investments		<u>-</u>		3,865				3,865
Total assets	\$	7,470	\$	68,060	\$		\$	75,530
Liabilities:								
Contingent consideration	\$	-	\$	-	\$	1,256	\$	1,256
Total liabilities	\$		\$	-	\$	1,256	\$	1,256

(1) Includes investments that are readily convertible to cash with original maturities of 90 days or less.

As of September 30, 2023 and December 31, 2022, carrying amounts reported on the Company's balance sheet for cash and cash equivalents, restricted cash, accounts receivable, prepaid expenses, employee retention tax credit receivable, other current assets, accounts payable, accrued employee compensation and benefits, accrued expenses and other current liabilities, and deferred revenue approximate their respective fair value due to liquidity and short-term nature of these items.

At September 30, 2023, the Company's financial liabilities consisted of contingent consideration and warrant liability:

Contingent Consideration

Contingent consideration represents a liability related to the Company's 2015 acquisition of the Senhance System (the "Senhance Acquisition"). Adjustments associated with changes in fair value of contingent consideration are included in the Company's condensed consolidated statements of operations and comprehensive loss. The following table summarizes changes in estimated fair value of the contingent consideration for the nine months ended September 30, 2023:

(In thousands)		Fair Value		
Balance at December 31, 2022	\$	1,256		
Change in fair value		105		
Balance at March 31, 2023		1,361		
Change in fair value		203		
Balance at June 30, 2023		1,564		
Change in fair value		366		
Balance at September 30, 2023	\$	1,930		

The following table presents quantitative information about the inputs and valuation methodologies used for fair value measurement of contingent consideration liability utilizing a Monte-Carlo simulation method as of September 30, 2023 and December 31, 2022:

	Valuation Methodology	Significant Unobservable Inputs	September 30, 2023	December 31, 2022
	Probability weighted income			
Contingent consideration	approach	Milestone date	2032	2032
		Revenue discount rate	11.0%	16.5%
		Revenue volatility	37.5%	45.0%
		EUR-to-USD exchange rate	1.06	1.07

Warrant Liabilities

During the three months ended September 30, 2023, the Company recorded warrant liabilities related to common stock warrants issued in the registered direct offering in July 2023 (for additional information about the offering, please refer to Note 12 -Equity Offerings).

Warrant liabilities were recorded at their initial estimated fair value. Adjustments associated with changes in fair value of the warrant liabilities are included in the Company's condensed consolidated statements of operations and comprehensive loss. The following table summarizes changes in estimated fair value of the warrant liabilities for the warrants issued in July 2023 as of September 30, 2023:

(In thousands)	Fair Va	lue
Balance at June 30, 2023	\$	-
Issuance of warrants		7,120
Change in fair value		(2,278)
Balance at September 30, 2023	\$	4,842

The fair value of the warrant liabilities were estimated using the Black-Scholes option pricing model, which is based on unobservable inputs and is designated as Level 3 in the fair value hierarchy. The following table summarizes the assumptions used in determining fair value of warrant liabilities:

		As of September
	As of July 31, 2023	30, 2023
Expected volatility	115%	115%
Risk-free interest rate	4.2%	4.6%
Expected life (in years)	5.0	4.8
Expected dividend yield	0%	0%

During the nine months ended September 30, 2023, there were no transfers of assets or liabilities between Level 1, Level 2, or Level 3 fair value categories.

5. Investments, Available for Sale

The aggregate fair values of investment securities along with cumulative unrealized gains and losses determined on an individual investment security basis and included in accumulated other comprehensive loss in the condensed consolidated balance sheets are as follows:

		September 30, 2023										
									Bal	lance Sheet	Classification	n
	An	nortized	Unreali	zed	Uı	nrealized			Sho	ort-term	Long-tern	n
(In thousands)		Cost	Gair	1		Loss	Fai	ir Value	inv	estments	investmen	its
Commercial Paper	\$		\$	_	\$		\$	-	\$	-	\$	-
Corporate Bonds		4,960		-		(28)		4,932		4,932		-
US Treasuries		5,491		-		-		5,491		5,491		-
U.S. Government Agencies		1,000		-		(3)		997		997		-
Total Investments	\$	11,451	\$	-	\$	(31)	\$	11,420	\$	11,420	\$	-

		December 31, 2022										
									Ba	lance Sheet	fication	
	An	ortized	Uı	nrealized	Uı	nrealized			Sh	ort-term	Lo	ıg-term
(In thousands)		Cost		Gain Loss		Loss Fair Value investment		ue investments		inve	estments	
Commercial Paper	\$	12,364	\$		\$	(49)	\$	12,315	\$	12,315	\$	-
Corporate Bonds		55,201		-		(447)		54,754		50,889		3,865
U.S. Government Agencies		999		-		(8)		991		991		-
Total Investments	\$	68,564	\$	-	\$	(504)	\$	68,060	\$	64,195	\$	3,865

As of September 30, 2023, contractual maturities of available-for-sale investments were one year or less. Actual maturities may differ from contractual maturities because certain borrowers have the right to call or prepay certain obligations. There were no sales of investments or gross realized gains or losses for the three or nine months ended September 30, 2023 or 2022.

6. Inventory

The components of inventory are as follows:

	September 30, 2023								
		Gross							
		Carrying		Reserve	Net Carrying				
(In thousands)		Amount		Balance		Amount			
Finished goods	\$	11,750	\$	(2,324)	\$	9,426			
Raw materials		5,308		(2,411)		2,897			
Total inventories	\$	17,058	\$	(4,735)	\$	12,323			
Current portion	\$	7,380	\$	(697)	\$	6,683			
Long-term portion		9,678		(4,038)		5,640			
Total inventories	\$	17,058	\$	(4,735)	\$	12,323			

	December 31, 2022								
		Gross							
		Carrying		Reserve	Net Carrying				
(In thousands)		Amount		Balance	Amount				
Finished goods	\$	15,337	\$	(4,129)	\$	11,208			
Raw materials		4,718		(2,173)		2,545			
Total inventory	\$	20,055	\$	(6,302)	\$	13,753			
Current portion	\$	9,399	\$	(1,115)	\$	8,284			
Long-term portion		10,656		(5,187)		5,469			
Total inventory	\$	20,055	\$	(6,302)	\$	13,753			

7. Intellectual Property

The components of gross intellectual property, accumulated amortization, and net intellectual property are as follows:

		September 30, 2023								
						Foreign				
	Gross				Currency		Net			
	Carrying		Acc	umulated	Translation			Carrying		
(In thousands)	A	Amount	Am	ortization		Impact		Amount		
Developed technology	\$	68,838	\$	(66,872)	\$	(830)	\$	1,136		
Technology and patents purchased		400		(269)		11		142		
Total intellectual property	\$	69,238	\$	(67,141)	\$	(819)	\$	1,278		

		December 31, 2022								
					Foreign					
		Gross				Currency		Net		
	(Carrying Accumulated		Translation			Carrying			
(In thousands)		Amount	An	nortization		Impact		Amount		
Developed technology	\$	68,838	\$	(66,562)	\$	(874)	\$	1,402		
Technology and patents purchased		400		(239)		13		174		
Total intellectual property	\$	69,238	\$	(66,801)	\$	(861)	\$	1,576		

The weighted average remaining useful life of the developed technology and technology and patents purchased was 3.4 years and 3.6 years, respectively, as of September 30, 2023. The weighted average remaining useful life of the developed technology and technology and patents purchased was 4.2 years and 4.3 years, respectively as of December 31, 2022.

8. Leases

Lessee Information

Components of operating lease expense recorded in general and administrative expense in the condensed consolidated statements of operations and comprehensive loss were as follows (in thousands):

	Tl	ree Mo		indec 0,	d September		Nine Months Ended September 30,				
		2023			2022	_		2023		2022	
Long-term Operating	\$		494	\$	40	8	\$	1,424	\$	1,192	

Supplemental balance sheet information related to operating leases was as follows:

	September 30,	
	2023	December 31, 2022
Weighted-average remaining lease term (in years)	6.1	6.8
Weighted-average discount rate	8.4%	8.4%

Maturities of operating lease obligations as of September 30, 2023 were as follows (in thousands):

Fiscal Year	
Remainder of 2023	\$ 309
2024	1,329
2025	1,251
2026	936
2027	954
2028 and thereafter	2,227
Total minimum lease payments	\$ 7,006
Less: Amount of lease payments representing interest	 (1,511)
Present value of future minimum lease payments	\$ 5,495

9. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following:

	Septe	mber 30,		
(In thousands)	2	2023	Decemb	er 31, 2022
Income and other taxes payable	\$	694	\$	839
Legal and professional fees		374		275
Royalties		23		24
Consulting services		167		155
Total accrued expenses and other current liabilities	\$	1,258	\$	1,293

10. Income Taxes

Income taxes have been accounted for using the asset and liability method in accordance with ASC 740 "Income Taxes". The Company computes its interim provision for income taxes by applying the estimated annual effective tax rate method. The Company estimates an annual effective tax rate of (0.3)% for the year ending December 31, 2023. This rate does not include the impact of any discrete items. The Company's effective tax rate for the three months ended September 30, 2023 and 2022 was (0.3)% and (0.3)%, respectively. The Company's effective tax rate for the nine months ended September 30, 2023 and 2022 was (0.2)% and (0.4)%, respectively.

The Company incurred losses for the three and nine months ended September 30, 2023, and is forecasting additional losses through the year, resulting in an estimated net loss for both financial statement and tax purposes for the year ending December 31, 2023. Due to the Company's history of losses, there is not sufficient evidence to record a net deferred tax asset associated with the U.S., Luxembourg, Swiss, Italian, Taiwanese, and Canadian operations. Accordingly, a full valuation allowance has been recorded related to the net deferred tax assets in those jurisdictions.

The total tax expense during the three months ended September 30, 2023 and 2022 was approximately \$57,000 and \$55,000, respectively. The total tax expense during the nine months ended September 30, 2023 and 2022 was approximately \$136,000 and \$224,000, respectively.

At September 30, 2023 the Company had no unrecognized tax benefits that would affect the Company's effective tax rate.

The Financial Accounting Standards Board ("FASB") Staff Q&A, Topic 740, No. 5, Accounting for Global Intangible Low-Taxed Income ("GILTI"), states that an entity can make an accounting policy election to either recognize deferred taxes for temporary basis differences expected to reverse as GILTI in future years or to provide for the tax expense related to GILTI in the year the tax is incurred as a period expense only. The Company has elected to account for GILTI as a period expense in the year the tax is incurred. The Company does not expect a GILTI inclusion for 2023; no GILTI tax has been recorded for the nine months ended September 30, 2023 or 2022, respectively.

11. Stock-Based Compensation

Incentive Compensation Plan Information

On June 6, 2023, at the 2023 Annual Meeting of Stockholders, the Company's stockholders voted to approve an amendment and restatement of the Company's Incentive Compensation Plan ("the Plan") to increase the number of shares reserved for issuance under the Plan by 22,000,000 shares. As a result of this amendment, shares authorized for issuance under the Plan increased to 54,072,307 shares.

Stock Options

The following table summarizes options outstanding as of September 30, 2023, as well as activity, including grants to employees and non-employees, for the nine months ended September 30, 2023:

	Number of Shares	Weighted- Average ercise Price	Weighted- Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (Millions)
Outstanding at December 31, 2022	7,584,967	\$ 4.22	5.31	
Granted	3,047,615	\$ 0.71		
Exercised	(13,300)	\$ 0.38		
Cancelled	(21,116)	\$ 25.79		
Forfeited	(106)	\$ 15.86		
Outstanding at September 30, 2023	10,598,060	\$ 3.17	5.10	\$ -
Vested or expected to vest at September 30, 2023	10,132,754	\$ 3.29	5.05	\$ -
Exercisable at September 30, 2023	5,591,291	\$ 5.15	4.37	\$ -

The fair value of options granted were estimated using the Black-Scholes-Merton option pricing model based on the assumptions in the table below:

	Nine Months Ende	d September 30,
	2023	2022
Expected volatility	124% - 130%	128% - 133%
Risk-free interest rate	3.53% - 4.14%	1.25% - 2.98%
Expected life (in years)	3.8 - 4.5	3.8 - 4.5
Expected dividend yield	0%	0%
Weighted average grant date fair value	\$0.59	\$0.60

Restricted Stock Units

The following table summarizes information about restricted stock units outstanding as of September 30, 2023, as well as activity, including performance restricted stock units, for the nine months ended September 30, 2023:

		Weighted-Ave Grant Date F	0
	Number of Shares	Value	
Outstanding at December 31, 2022	8,483,491	\$	1.04
Granted	8,482,315	\$	0.71
Vested	(3,623,411)	\$	1.14
Forfeited	(539,448)	\$	0.76
Outstanding at September 30, 2023	12,802,947	\$	0.82

Performance-Based Restricted Stock Units

In 2023 and 2022, the Company granted performance-based restricted stock units. In particular, the number of shares earnable under the 2023 and 2022 awards is based on achieving certain operational targets by December 31, 2023 and October 1, 2023, respectively. These operational targets have been achieved for the awards granted in 2022, therefore the 2022 performance-based restricted stock units are fully earned and remain subject to three-year time-based vesting requirements. The Company has not yet achieved the operational targets required for the awards granted in 2023.

Stock-Based Compensation Expense

The following table summarizes non-cash stock-based compensation expense by award type for the three and nine months ended September 30, 2023 and 2022:

	Thr	Three Months Ended September 30,			Nine Months Ended September 30,			
(In thousands)		2023		2022		2023		2022
Stock options	\$	552	\$	913	\$	1,808	\$	2,812
Restricted stock units		1,037		772		2,873		2,480
Performance restricted stock units		430		348		1,232		1,069
	\$	2,019	\$	2,033	\$	5,913	\$	6,361

As of September 30, 2023, the unrecognized stock-based compensation expense related to stock options was approximately \$2.2 million, which is expected to be recognized over a weighted average period of 1.7 years. As of September 30, 2023, the unrecognized stock-based compensation expense related to unvested restricted stock units and performance restricted stock units was approximately \$6.0 million, which is expected to be recognized over a weighted average period of 1.4 years.

12. Equity Offerings

2022 At-The-Market Offering

On March 18, 2022, the Company entered into a Controlled Equity Offering Sales Agreement (the "2022 Sales Agreement") with Cantor Fitzgerald & Co. and Oppenheimer & Co. Inc., collectively, "the Agents". The Company commenced an at-the-market offering (the "2022 ATM Offering") pursuant to which the Company could offer and sell, from time to time, at its option, shares of its common stock for an aggregate offering price of up to \$100.0 million. The aggregate compensation payable to the Agents was 3.0% of the aggregate gross proceeds from each sale of the Company's common stock.

The following table presents details about common stock issued pursuant to the 2022 ATM Offering (in thousands, except share and per share amounts):

	Three Months Ended September		Nine Months Ended September	
		30, 2023		30, 2023
Shares of common stock issued		78,600		433,672
Average price per share	\$	0.31	\$	0.52
Gross proceeds	\$	25	\$	227
Commission paid to Agents	\$	(1)	\$	(7)
Net proceeds	\$	24	\$	220

2023 Registered Equity Offering

On July 27, 2023, the Company sold, in a registered direct offering, an aggregate of 23,809,524 shares of common stock, and warrants to purchase 23,809,524 of the Company's common stock shares at an exercise price of \$0.42 per common share ("the warrants"), for an aggregate purchase price of \$10.0 million. The warrants are exercisable at any time on or after the date of issuance and will expire five years after the date of issuance. Based on the assessment of the warrant's specific terms and applicable authoritative guidance in ASC 480 – Distinguishing Liabilities from Equity and ASC 815 – Derivatives and Hedging, the Company determined that warrants did not meet the requirements for equity classification. Accordingly, the warrants were recorded as a liability on the Company's balance sheet at their initial estimated fair value on the date of issuance. For additional information regarding the fair value of warrant liabilities, please refer to Note 4 – Fair Value Measurements.

The Company allocated \$7.1 million of the aggregate proceeds to warrants based on their estimated fair value, with the residual amount of \$2.9 million allocated to common stock. Offering related issuance costs were approximately \$1.0 million and consisted primarily of placement agent's fees and legal expenses. Issuance costs were allocated to common stock and warrant liability proportionally to the allocation of the purchase price. For the three and nine months ended September 30, 2023, the Company recorded \$0.7 million of other expense, net, in the condensed consolidated statement of operations related to issuance costs allocated to warrant liabilities.

13. Basic and Diluted Net Loss per Share

Basic net loss per common share is computed by dividing net loss attributable to common stockholders by the weighted average number of common shares outstanding during the period. Diluted net loss per common share is computed giving effect to all potential dilutive common shares that were outstanding during the period. Potential dilutive common shares consist of incremental shares issuable upon exercise of stock options, restricted stock units, and warrants. No adjustments have been made to the basic weighted average outstanding common shares figures for the three and nine months ended September 30, 2023 or 2022 as the assumed exercise of outstanding options, warrants and restricted stock units would be anti-dilutive.

Potential common shares not included in the computation of diluted net loss per share are as follows:

	Septembe	er 30,
	2023	2022
Stock options	10,598,060	7,404,858
Nonvested restricted stock units	12,802,947	8,038,575
Stock warrants	24,830,500	1,021,076
Total	48,231,507	16,464,509

14. Commitments and Contingencies

License and Supply Agreements

The Company has purchase orders with various suppliers for certain tooling, supplies, contract engineering and research services. Commitments related to these agreements and purchase orders are as follows (in thousands):

Fiscal Year	
2023 (remaining three months)	\$ 4,223
2024	1,543
2025	314
2026	303
Total commitments	\$ 6,383

15. Segments and Geographic Areas

The Company operates in one business segment—the research, development, and sale of medical devices to improve minimally invasive surgery. The Company's chief operating decision maker (determined to be the Chief Executive Officer) does not manage any part of the Company separately, and the allocation of resources and assessment of performance are based on the Company's consolidated operating results.

The following table presents long-lived assets (which include property and equipment and operating lease assets) by geographic area:

	September 30,	
	2023	December 31, 2022
U.S.	37%	39%
EMEA	57%	57%
Asia	6%	4%
Total	100%	100%

The following table presents revenue by geographic area based on the country in which the customer is based:

	Three Months En 30,	Three Months Ended September 30,		led September
	2023	2022	2023	2022
US	17%	7%	17%	13%
EMEA	64%	86%	62%	72%
Asia	19%	7%	21%	15%
Total	100%	100%	100%	100%

For the three months ended September 30, 2023, one customer accounted for more than 10% of revenue. For the nine months ended September 30, 2023, no customers accounted for more than 10% of revenue. For the three and nine months ended September 30, 2022, the Company had one customer who accounted for more than 10% of revenue.

16. Related Party Transactions

In March 2018, Asensus Surgical Europe S.à r.l. entered into a Service Supply Agreement with 1 Med S.A. for certain regulatory consulting services. Andrea Biffi, a current member of the Company's Board of Directors, owns a non-controlling interest in 1 Med S.A. Expenses under the Service Supply Agreement were approximately \$2,000 and \$67,000 for the three months ended September 30, 2023 and 2022, respectively, and \$73,000 and \$208,000 for the nine months ended September 30, 2023 and 2022, respectively.

FORWARD-LOOKING STATEMENTS

In addition to historical financial information, this Quarterly Report on Form 10-Q contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that concern matters that involve risks and uncertainties that could cause actual results to differ materially from those projected in the forward-looking statements. These forward-looking statements are intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact contained in this report, including statements regarding future events, our future financial performance, our future business strategy and the plans and objectives of management for future operations, are forward-looking statements. We have attempted to identify forward-looking statements by terminology including "anticipates," "believes," "can," "continue," "could," "estimates," "expects," "intends," "in the event that," "may," "plans," "potential," "predicts," "should" or "will" or the negative of these terms or other comparable terminology. Although we do not make forward-looking statements unless we believe we have a reasonable basis for doing so, we cannot guarantee their accuracy. 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 expressed or implied by such forward-looking statements, including our historical lack of profitability; our ability to continue as a going concern within one year from the date that these financial statements are issued as a result of anticipated capital needs, in conjunction with past recurring losses and a significant accumulated deficit; our ability to grow placements and increase utilization of the Senhance System by customers, our ability to raise additional capital; our ability to successfully develop, clinically test, seek regulatory clearance for and commercialize our products and products in development; negative impacts on our operations caused by the hostilities in the Middle East, the COVID-19 pandemic and other geopolitical factors; the success of our market development efforts; the timing and outcome of the regulatory review process for our products; changes in the healthcare regulatory environments of the United States, the European Union, Japan, Taiwan and other countries in which we operate or intend to operate; our ability to attract and retain key management, marketing and scientific personnel; our ability to successfully prepare, file, prosecute, maintain, defend and enforce patent claims and other intellectual property rights; our ability to successfully transition from a research and development company to a marketing, sales and distribution concern; and competition in the market for robotic and digital surgical devices;. Readers are urged to carefully review and consider the various disclosures made by us, which attempt to advise interested parties of the risks, uncertainties, and other factors that affect our business, operating results, financial condition and stock price, including, without limitation, the disclosures made under the captions "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Financial Statements," "Notes to Condensed Consolidated Financial Statements "and "Risk Factors" in this report, as well as the disclosures made in the Asensus Surgical, Inc. Annual Report on Form 10-K for the year ended December 31, 2022 (the "Fiscal Year 2022 Form 10-K"), and other filings we make with the Securities and Exchange Commission (the "SEC"). Furthermore, such forward-looking statements speak only as of the date of this report. We expressly disclaim any intent or obligation to update any forward-looking statements after the date hereof to conform such statements to actual results or to changes in our opinions or expectations except as required by applicable law. References in this report to "we," "our," "us," or the "Company" refer to Asensus Surgical, Inc., including its subsidiaries Asensus Surgical US, Inc., Asensus International, Inc., Asensus Surgical Italia S.r.l., Asensus Surgical Europe S.à r.l., Asensus Surgical Taiwan Ltd., Asensus Surgical Japan K.K., Asensus Surgical Israel Ltd., Asensus Surgical Netherlands B.V., and Asensus Surgical Canada, Inc.

Any disclosure in this report regarding the receipt of CE Mark or Section 510(k) clearance for any of the Company's products does not mean or infer any endorsement of the Company's products by any government agency including, without limitation, the U.S. Food and Drug Administration, or FDA.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion of our financial condition and results of operations should be read in conjunction with our condensed unaudited consolidated financial statements and the related notes to our condensed unaudited consolidated financial statements included in this report. The following discussion contains forward-looking statements. See cautionary note regarding "Forward-Looking Statements" above.

Overview

We are a medical device company that is digitizing the interface between the surgeon and patient to pioneer a new era of what we call "Performance-Guided SurgeryTM" by unlocking clinical intelligence for surgeons to enable consistently superior outcomes and a new standard of surgery. Based upon the foundations of digital laparoscopy and the Senhance® Surgical System, the Company is developing the LUNATM Surgical System, a next generation robotic and instrument system as a foundation of its digital surgery solution. These systems will be powered by the Intelligent Surgical UnitTM (ISUTM) to increase surgeon control and reduce surgical variability. With the addition of machine vision, augmented intelligence, and deep learning capabilities throughout the surgical experience, we intend to holistically address the current clinical, cognitive, and economic shortcomings that drive surgical outcomes and value-based healthcare.

Our strategy is to focus on the realization of Performance-Guided Surgery through the continued collection of surgical data via the ISU and Asensus Cloud leveraging the Senhance System and by other means of non-robotic laparoscopic surgery, while completing the design and development of the LUNA System and its capabilities.

We continue market development for and commercialization of the Senhance System, which digitizes laparoscopic minimally invasive surgery, or MIS. The Senhance System is the first and only digital, multi-port laparoscopic platform designed to maintain laparoscopic MIS standards while providing digital benefits such as haptic feedback, robotic precision, comfortable ergonomics, advanced instrumentation including 3mm microlaparoscopic instruments, 5mm articulating instruments, eye-sensing camera control and fully-reusable standard instruments to help maintain per-procedure costs similar to traditional laparoscopy.

The Senhance System is available for sale in Europe, the United States, Japan, Taiwan, Russia (to the extent lawful), and select other countries.

- The Senhance System has a CE Mark in Europe for adult and pediatric laparoscopic abdominal and pelvic surgery, as well as limited thoracic surgeries excluding cardiac and vascular surgery.
- In the United States, the Company has received 510(k) clearance from the FDA for use of the Senhance System in general laparoscopic surgical procedures and laparoscopic gynecologic surgery in a total of 31 indicated procedures, including benign and oncologic procedures, laparoscopic inguinal, hiatal and paraesophageal hernia, sleeve gastrectomy and laparoscopic cholecystectomy surgery.
- In Japan, the Company has received regulatory approval and reimbursement for 124 laparoscopic procedures.
- The Senhance System received its registration certificate by the Russian medical device regulatory agency, Roszdravnadzor, in December 2020, allowing for its sale and utilization throughout the Russian Federation.

We also enter into lease arrangements with certain qualified customers. For some lease arrangements, the customers are provided with the right to purchase the leased Senhance System during or at the end of the lease term ("Lease Buyout").

We received FDA clearance in March 2020 for our ISU. We believe it is the only FDA cleared device for machine vision technology in abdominal robotic surgery. On September 23, 2020, we announced the first surgical procedures successfully completed using the ISU. In January 2021, we received CE Mark for the ISU. In 2022, we received FDA clearance for advanced features of the ISU and received CE Mark for such enhancements in January 2023.

In February 2020, we received CE Mark for the Senhance System and related instruments for pediatric use indications in CE Mark territories. We received FDA clearance in March 2023 for the pediatric indication for the Senhance System. The expanded indication allows accessibility to more surgeons and patients, as well as expanding our potential market to include pediatric hospitals. We anticipate the robotic precision provided by the Senhance System, coupled with the already available 3mm instruments and haptic feedback will prove to be an effective tool in surgery with smaller patients.

In 2020, we obtained regulatory clearance for the Senhance ultrasonic system in both Taiwan and Japan. We also received clearance for the ISU in Japan.

On July 28, 2021, the Company announced that it received FDA clearance for 5mm diameter articulating instruments, offering better access to difficult-to-reach areas of the anatomy by providing two additional degrees of freedom. These instruments have previously received CE Mark for use in the EU.

On February 21, 2023, we held an investor day to describe our focus on developing a next generation robotic system we call the LUNA Surgical System and the ongoing developments in our Performance-Guided Surgery platform. Performance-Guided Surgery is comprised of three strategic pillars:

- enhanced robotic precision and manipulation capabilities, via the Senhance System today and, when developed and approved, the LUNA System;
- expanded intra-operative augmented intelligence clinical decision support guidance for the surgeon via the ISU; and
- integration of cloud and big data to harness best practices across pre-, intra-, and post-operative settings, and make it available to surgeons around the world via the Asensus Cloud.

The Company believes that future outcomes of minimally invasive laparoscopic surgery will be enhanced through its combination of more advanced tools and robotic functionality, which are designed to: (i) empower surgeons with improved precision, dexterity and visualization; (ii) improve patient satisfaction and enable a desirable post-operative recovery; and (iii) provide a cost-effective robotic system, as compared to existing alternatives today, for a wide range of clinical indications.

From our inception, we devoted a substantial percentage of our resources to research and development and start-up activities, consisting primarily of product design and development, clinical studies, manufacturing, recruiting qualified personnel and raising capital. We are a data driven company that expects to continue to invest in research and development, market development, and generation and analysis of clinical evidence as we implement our strategy. As a result, we will need to generate significant revenue in order to achieve profitability. We expect to continue to invest in research and development and market development as we implement our strategy.

Since inception, we have incurred substantial losses from operations and had negative cash flows from operating activities. As of September 30, 2023, we had an accumulated deficit of \$922.1 million, and there is substantial doubt about our ability to continue as a going concern. We operate in one business segment.

Recent Financing Transactions

2022 At-The-Market Offering

On March 18, 2022, the Company entered a Controlled Equity Offering Sales Agreement (the "2022 Sales Agreement"), with Cantor Fitzgerald & Co., and Oppenheimer & Co. Inc., collectively, "the Agents". The Company commenced an at-the-market offering (the "2022 ATM Offering") pursuant to which the Company could offer and sell, from time to time, at its option, shares of its common stock for an aggregate offering price of up to \$100.0 million. During the nine months ended September 30, 2023, the Company sold 433,672 shares of common stock for aggregate net proceeds of \$0.2 million.

2023 Registered Direct Offering

On July 27, 2023, the Company sold, in a registered direct offering, an aggregate of 23,809,524 shares of common stock, and warrants to purchase 23,809,524 of the Company's common stock shares at an exercise price of \$0.42 per common share ("the warrants"), for an aggregate purchase price of \$10.0 million. Warrants are exercisable at any time on or after the date of issuance and will expire five years after the date of issuance. Based on the assessment of the warrant's specific terms and applicable authoritative guidance in ASC 480 and ASC 815, the Company determined that warrants did not meet the requirements for equity classification. Accordingly, warrants were recorded as a liability on the Company's balance sheet at their initial estimated fair value on the date of issuance. For additional information regarding the fair value of warrant liability, please refer to Note 4 – Fair Value Measurements.

The Company allocated \$7.1 million of the aggregate proceeds to warrants based on their estimated fair value, with the residual amount of \$2.9 million allocated to common stock. Offering related issuance costs were approximately \$1.0 million and consisted primarily of placement agent's fees and legal expenses. Issuance costs were allocated to common stock and warrant liability proportionally to the allocation of the purchase price. For the three and nine months ended September 30, 2023, the Company recorded \$0.7 million of other expense in the statement of operations related to issuance costs allocated to warrant liability.

Results of Operations - Comparison of Three Months Ended September 30, 2023 and 2022

Revenue

In the third quarter of 2023, our revenue consisted of ongoing Senhance Systems' leasing payments, sales of instruments and accessories, and services revenue for Senhance Systems sold in Europe, Asia, and the U.S. in prior periods. In the third quarter of 2022, our revenue consisted of the sale of a Senhance System, ongoing Senhance Systems' leasing payments, sales of instruments and accessories, and services revenue for Senhance Systems sold or placed in Europe, Asia, and the U.S. in prior periods.

Product revenue for the three months ended September 30, 2023 was \$0.3 million compared to \$2.0 million for the three months ended September 30, 2022. The decrease was primarily due to the prior period sale of a Senhance System, and more instruments and accessories sold outside of leased Senhance Systems in the third quarter of 2022.

Service revenue for the three months ended September 30, 2023 and 2022 remained consistent at \$0.3 million.

Lease revenue for the three months ended September 30, 2023 increased to \$0.5 million compared to \$0.3 million for the three months ended September 30, 2022. The \$0.2 million increase relates to an increase in the number of lease placements.

Cost of Revenue

Cost of revenue consists of contract manufacturing, materials, labor, and manufacturing overhead incurred internally to produce the products. Shipping and handling costs incurred by the Company are included in cost of revenue. We expense all inventory excess and obsolescence provisions as cost of revenue. The manufacturing overhead costs include the cost of quality assurance, material procurement, inventory control, facilities, equipment depreciation and operations supervision and management.

Product cost for the three months ended September 30, 2023 were \$1.2 million as compared to \$3.1 million for the three months ended September 30, 2022. The \$1.9 million decrease primarily consists of a \$1.5 million prior period inventory obsolescence charge and direct cost related to a prior period system sale of \$0.6 million, partially offset by an increase in personnel costs of \$0.2 million.

Service cost for the three months ended September 30, 2023 was \$0.6 million as compared to \$0.4 million for the three months ended September 30, 2022, primarily as a result of increased personnel costs of \$0.1 million and other costs of \$0.1 million.

Lease cost for the three months ended September 30, 2023 was \$1.1 million as compared to \$1.0 million for the three months ended September 30, 2022. The \$0.1 million increase was driven by an increase in the number of lease placements.

Research and Development

Research and development, or R&D, expenses primarily consist of engineering, product development and regulatory expenses incurred in the design, development, testing and enhancement of our products and legal services associated with our efforts to obtain and maintain broad protection for the intellectual property related to our products. In future periods, we expect R&D expenses to continue to substantially increase as we invest in the LUNA System and our digital laparoscopy platform. R&D expenses are expensed as incurred.

R&D expenses for the three months ended September 30, 2023 increased 39% to \$9.3 million as compared to \$6.7 million for the three months ended September 30, 2022 as we continue to invest in basic research, clinical evaluations, and product development in the areas of robotics and digital technologies supporting the LUNA System, the ISU and our digital laparoscopy platform. All activities are part of our effort to build the future for Performance-Guided Surgery. The \$2.6 million increase primarily relates to increased expenses related to contract engineering services, consulting, and other outside services of \$1.0 million, increased personnel costs of \$0.7 million, increased supplies costs of \$0.3 million, increased IT costs of \$0.3 million and increases in other expenses of \$0.3 million.

Sales and Marketing

Sales and marketing expenses include costs for sales and marketing and clinical support personnel, travel, demonstration product, market development, physician training, tradeshows, marketing clinical evaluations and consulting expenses.

Sales and marketing expenses for the three months ended September 30, 2023 increased 14% to \$4.1 million compared to \$3.6 million for the three months ended September 30, 2022. The \$0.5 million increase was primarily related to \$0.6 million increase in employee-related costs, and other costs of \$0.2 million, partially offset by savings in consulting and freight of \$0.3 million.

General and Administrative

General and administrative expenses consist of personnel costs related to the executive, finance, legal, IT and human resource functions, as well as professional service fees, legal fees, accounting fees, insurance costs, and general corporate expenses.

General and administrative expenses for the three months ended September 30, 2023 decreased by 6% to \$4.6 million compared to \$4.9 million, primarily due to a reduction in IT and facility expenses of \$0.3 million.

Amortization of Intangible Assets

Amortization of intangible assets for the three months ended September 30, 2023 decreased to \$0.1 million compared to \$2.4 million for the three months ended September 30, 2022. The \$2.3 million decrease is primarily related to the reduction in the amortizable intangible assets base as two developed technologies intangible assets were fully amortized during the year ended December 31, 2022.

Change in Fair Value of Contingent Consideration

The change in fair value of contingent consideration in connection with the Senhance Acquisition was a \$0.4 million increase for the three months ended September 30, 2023 compared to a \$0.4 million decrease for the three months ended September 30, 2022. The increase was primarily due to changes in the market assumptions utilized in the valuation of fair value of the contingent consideration, including the Company's forecast of future product revenue and the discount rate.

Other Income, net

Other income for the three months ended September 30, 2023 increased to \$2.0 million compared to income of \$0.2 million for the three months ended September 30, 2022. The \$1.8 million increase primarily relates to unrealized gain on the remeasurement of the fair value of warrant liabilities partially offset by the transaction costs related to the issuance of the warrant liabilities.

Income Tax Expense

The Company recorded \$0.1 million income tax expense for each of the three months ended September 30, 2023 and September 30, 2022.

Results of Operations - Comparison of Nine Months Ended September 30, 2023 and 2022

Revenue

In the nine months ended September 30, 2023 and 2022, our revenue consisted of ongoing Senhance Systems' leasing payments, sales of instruments and accessories, and services revenue for Senhance Systems sold in Europe, Asia, and the U.S. in prior periods. 2022 revenue also included revenue from the sale of one system.

Product revenue for the nine months ended September 30, 2023 was \$0.9 million, as compared to \$2.6 million for the nine months ended September 30, 2022. The \$1.7 million decrease primarily consists of the non-recurrence of both a prior period Senhance system sale.

Service revenue for the nine months ended September 30, 2023 was \$0.8 million compared to \$1.1 million for the nine months ended September 30, 2022. The \$0.3 million decrease was due to a decrease in the number of Senhance Systems under service contracts.

Lease revenue for the nine months ended September 30, 2023 increased to \$1.5 million compared to \$1.0 million for the nine months ended September 30, 2022. The \$0.5 million increase was the result of additional lease placements in the first nine months of 2023.

Cost of Revenue

Cost of revenue consists of contract manufacturing, materials, labor, and manufacturing overhead incurred internally to produce the products. Shipping and handling costs incurred by us are included in cost of revenue. We expense all inventory excess and obsolescence provisions as cost of revenue. The manufacturing overhead costs include the cost of quality assurance, material procurement, inventory control, facilities, equipment depreciation and operations supervision and management.

Product cost for the nine months ended September 30, 2023 were \$4.0 million compared to \$4.3 million for the nine months ended September 30, 2022. The \$0.3 million decrease primarily consists of a \$1.5 million prior period inventory obsolescence charge and direct costs of a prior period system sale of \$0.6 million, partially offset by an increase in supply costs of \$1.0 million, an increase in personnel costs of \$0.5 million, an increase in freight costs of \$0.2 million and \$0.1 million of other expense.

Service cost for the nine months ended September 30, 2023 were \$1.8 million compared to \$1.5 million for the nine months ended September 30, 2022. The \$0.3 million increase primarily relates to increases in personnel costs.

Lease cost for the nine months ended September 30, 2023 and 2022 was \$3.0 million and \$2.8 million respectively.

Research and Development

R&D expenses primarily consist of engineering, product development and regulatory expenses incurred in the design, development, testing and enhancement of our products and legal services associated with our efforts to obtain and maintain broad protection for the intellectual property related to our products. In future periods, we expect R&D expenses to continue to substantially increase as we invest in the LUNA System and our digital laparoscopy platform. R&D expenses are expensed as incurred.

R&D expenses for the nine months ended September 30, 2023 increased 39% to \$28.4 million as compared to \$20.4 million for the nine months ended September 30, 2022 as we continue to invest in basic research, clinical evaluations, and product development in the areas of robotics and digital technologies supporting the LUNA System and our digital laparoscopy platform. All activities are part of our effort to build the future for Performance-Guided Surgery. The \$8.0 million increase primarily relates to increased contract engineering services, consulting, and other outside services of \$3.8 million, increased personnel costs of \$1.9 million, increased IT costs of \$1.2 million and increased supplies costs of \$1.1 million.

Sales and Marketing

Sales and marketing expenses include costs for sales, marketing and clinical personnel, travel, demonstration product, market development, physician training, tradeshows, marketing clinical studies and consulting expenses.

Sales and marketing expenses for the nine months ended September 30, 2023 increased 20% to \$13.1 million compared to \$10.9 million for the nine months ended September 30, 2022. The \$2.2 million increase was primarily related to \$2.0 million of increased employee-related costs and \$0.4 million of IT and facility related costs, partially offset by savings in freight and other expenses of \$0.2 million.

General and Administrative

General and administrative expenses consist of personnel costs related to the executive, finance, legal, IT and human resource functions, as well as professional service fees, legal fees, accounting fees, insurance costs, and general corporate expenses.

General and administrative expenses for the nine months ended September 30, 2023 decreased slightly to \$15.2 million compared to \$15.4 million for the nine months ended September 30, 2022. The \$0.2 million decrease was related to a \$0.2 million reduction in employee-related costs.

Amortization of Intangible Assets

Amortization of intangible assets for the nine months ended September 30, 2023 was \$0.3 million compared to \$7.6 million for the nine months ended September 30, 2022. The \$7.3 million decrease was primarily related to two developed technologies intangible assets that were fully amortized during the year ended December 31, 2022.

Change in Fair Value of Contingent Consideration

A \$0.7 million increase in fair value associated with contingent consideration in connection with the Senhance Acquisition was recognized for the nine months ended September 30, 2023 compared to a \$1.2 million reduction in fair value for the nine months ended September 30, 2022. The change in fair value was primarily due to changes in market assumptions and the discount rate utilized.

Impairment of Property and Equipment

During the nine months ended September 30, 2022, the Company recorded an impairment charge of \$0.4 million to reduce the carrying value of property and equipment to its estimated fair value. The property and equipment is associated with operating leases that did not elect to renew their agreements. No impairment charge was recognized for the nine months ended September 30, 2023.

Other Income, net

Other income for the nine months ended September 30, 2023 was \$2.4 million compared to \$0.1 million for the nine months ended September 30, 2022. The change was primarily related to a \$2.3 million increase in the fair value of warrant liabilities recorded during the nine months ended September 30, 2023, a \$0.5 million increase in interest income and a decrease in interest expense of \$0.4 million partially offset by \$0.9 million increase in other expenses.

Income Tax Expense

The Company recognized \$0.1 million income tax expense for the nine months ended September 30, 2023, compared to \$0.2 million income tax expense for the nine months ended September 30, 2022.

Liquidity and Capital Resources

Going Concern

The Company's consolidated financial statements are prepared using U.S. GAAP applicable to a going concern, which contemplates the realization of assets and liquidation of liabilities in the normal course of business. The Company had an accumulated deficit of \$922.1 million and working capital of \$33.8 million as of September 30, 2023. The Company has not established sufficient revenues to cover its operating costs and will require additional capital to continue as a going concern. As of September 30, 2023, the Company had cash, cash equivalents, and short-term investments, excluding restricted cash, of approximately \$33.1 million. We believe that our existing cash, cash equivalents, and short-term investments, together with cash received from product, service, and lease sales will be sufficient to meet our anticipated cash needs into the late second quarter of 2024.

The Company will need to obtain additional financing to proceed with its business plan. Management's plans to obtain additional resources for the Company may include additional sales of equity, traditional financing, such as loans, entry into a strategic collaboration, entry into an out-licensing arrangement or provision of additional distribution rights in some or all of our markets. The Company is also seeking to reduce its costs while maintaining the implementation of its strategic plan. However, management cannot provide any assurance that the Company will be successful in accomplishing any or all of its plans. If sufficient funds are not received on a timely basis, the Company would then need to reduce costs further and/or pursue a plan to license or sell its assets, seek to be acquired by another entity, cease operations and/or seek bankruptcy protection. The ability to successfully resolve these factors raise substantial doubt about the Company's ability to continue as a going concern within one year from the date that these financial statements are issued. The consolidated financial statements of the Company do not include any adjustments that may result from the outcome of these aforementioned uncertainties.

The Company is subject to risks similar to other similarly sized companies in the medical device industry. These risks include, without limitation: the historical lack of profitability; the Company's ability to grow its placements and increase utilization of the Senhance System by customers, the Company's ability to raise additional capital; its ability to successfully develop, clinically test, obtain regulatory clearance for and commercialize its products and products in development; negative impacts on the Company's operations caused by the hostilities in the Middle East, the COVID-19 pandemic and other geopolitical factors; the success of its market development efforts; the timing and outcome of the regulatory review process for its products; changes in the healthcare regulatory environments of the United States, the European Union, Japan, Taiwan and other countries in which the Company operates or intends to operate; its ability to attract and retain key management, marketing and scientific personnel; its ability to successfully prepare, file, prosecute, maintain, defend and enforce patent claims and other intellectual property rights; its ability to successfully transition from a research and development company to a marketing, sales and distribution concern; competition in the market for robotic and digital surgical devices; and its ability to identify and pursue development of additional products.

Sources of Liquidity

Our principal sources of liquidity to date have been cash proceeds from issuance of common stock pursuant to public offerings, incurrence of debt and proceeds from sales and maturities of investments.

Our cash flows for the nine months ended September 30, 2023 and 2022 were follows:

	Nine Months Ended September 30,		
(Unaudited, in millions)	2	2023	2022
Net cash (used in) provided by			
Operating activities	\$	(50.2) \$	(44.9)
Investing activities		57.1	41.2
Financing activities		9.4	(0.3)
Effect of exchange rate changes on cash and cash equivalents		(0.5)	(0.3)
Net increase (decrease) in cash, cash equivalents and restricted cash	\$	15.8 \$	(4.3)

Operating Activities

For the nine months ended September 30, 2023, cash used in operating activities of \$50.2 million consisted of a net loss of \$61.2 million, offset by changes non-cash items of \$7.0 million and changes in operating assets and liabilities of \$4.0 million. The non-cash items primarily consisted of \$5.9 million of stock-based compensation expense, \$2.4 million of depreciation, \$0.3 million of amortization expense, \$0.7 million of change in fair value of contingent consideration, \$0.3 million change in inventory reserve and deferred tax expense of \$0.1 million, partially offset by \$2.3 million change in the fair value of warrant liabilities and \$0.5 million in accretion of discounts and premiums on investments. The increase in cash from changes in operating assets and liabilities primarily relates to a \$1.6 million decrease in accounts receivable, a \$1.2 million increase in accounts payable, a decrease in other current and long term assets of \$0.3 million, a decrease in inventory of \$0.5 million, a \$0.6 million reduction in the employee retention tax credit receivable and a \$0.6 million increase in the accrued employee compensation, partially offset by a \$0.6 million increase in prepaid expenses, an increase in operating lease right of use assets of \$0.1 million and a decrease of \$0.1 million in accrued expenses and other current liabilities.

For the nine months ended September 30, 2022, cash used in operating activities of \$44.9 million consisted of a net loss of \$57.7 million, changes in operating assets and liabilities of \$4.2 million, offset by non-cash items of \$17.0 million. The non-cash items primarily consisted of \$7.6 million of amortization of intangible assets, \$6.4 million of stock-based compensation expense, \$2.5 million of depreciation, \$0.6 million of net amortization of discounts and premiums on investments, \$0.4 million in impairment of property and equipment, \$0.2 million deferred tax expense, \$0.4 million change in inventory reserves, offset by \$1.2 million of change in fair value of contingent consideration. The decrease in cash from changes in operating assets and liabilities primarily relates to a \$2.1 million increase in other current and long-term assets, \$1.7 million increase in accounts receivable, \$0.5 increase in inventory net of transfers to property and equipment, \$0.7 million increase in prepaid expenses, \$0.1 million decrease in deferred revenue, \$0.1 million decrease in operating lease liabilities, offset by \$0.4 million increase in accounts payable, \$0.2 million decrease in operating lease right-of-use assets, \$0.2 million increase in accrued expenses, and \$0.2 million decrease in employee retention tax credit receivable.

Investing Activities

For the nine months ended September 30, 2023, net cash provided by investing activities was \$57.1 million. This amount consists of \$69.8 million of proceeds from maturities of available-for-sale investments, offset by \$12.3 million of purchases of available-for-sale investments and \$0.5 million purchases of property and equipment.

For the nine months ended September 30, 2022, net cash provided by investing activities was \$41.2 million. This amount consists of \$67.7 million of proceeds from maturities of available-for-sale investments, offset by \$25.6 million of purchases of available-for-sale investments and \$0.9 million purchases of property and equipment.

Financing Activities

For the nine months ended September 30, 2023, net cash provided by financing activities was \$9.4 million, primarily related to proceeds from issuance of common stock and warrants of \$9.9 million, partially offset by \$0.5 million in taxes paid for the net share settlement of vesting of restricted stock units.

For the nine months ended September 30, 2022, net cash used in financing activities was \$0.3 million, related to taxes paid for the net share settlement of vesting of restricted stock units.

Operating Capital and Capital Expenditure Requirements

We intend to spend substantial amounts on research and development activities, including product development, regulatory and compliance, and clinical studies in support of the development of the LUNA System and our digital solutions platform. We intend to use financing opportunities strategically to continue to strengthen our financial position.

Cash and cash equivalents held by our foreign subsidiaries totaled \$1.6 million as of September 30, 2023, including restricted cash. We do not intend or currently foresee a need to repatriate cash and cash equivalents held by our foreign subsidiaries. If these funds are needed in the United States, we believe that the potential U.S. tax impact to repatriate these funds would be immaterial.

Critical Accounting Estimates

The discussion and analysis of our financial condition and results of operations set forth above under the headings "Results of Operations" and "Liquidity and Capital Resources" have been prepared in accordance with U.S. GAAP and should be read in conjunction with our consolidated financial statements and notes thereto appearing in this Form 10-Q and in the Fiscal Year 2022 Form 10-K. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate our critical accounting estimates, including identifiable intangible assets, contingent consideration, stockbased compensation, inventory, warrants, revenue recognition and income taxes. We base our 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 sources. A more detailed discussion on the application of these and other accounting policies can be found in Note 2 in the Notes to the condensed consolidated Financial Statements in this Form 10-Q. Actual results may differ from these estimates under different assumptions and conditions. With the exception of our policy on warrants, there have been no new or material changes to the critical accounting estimates discussed in our Fiscal Year 2022 Form 10-K, that are of significance, or potential significance, to us.

While all accounting policies impact the consolidated financial statements, certain policies may be viewed as critical. Critical accounting estimates are those that are both most important to the portrayal of financial condition and results of operations and that require management's most subjective or complex judgments and estimates. Our management believes the policies that fall within this category are the estimates on accounting for identifiable intangible assets, contingent consideration, stock-based compensation, inventory, warrants, revenue recognition and income taxes.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to changes in foreign currency exchange rates. Operations outside of the United States accounted for 83% and 87% of revenue for the nine months ended September 30, 2023 and 2022, respectively, and are concentrated principally in Europe. We translate the revenue and expenses of our foreign operations using average exchange rates prevailing during the period. The effect of a 10% change in the average foreign currency exchange rates among the U.S. dollar versus the Euro for the nine months ended September 30, 2023, would result in revenue changing by \$0.3 million. This change would not be material to our cash flows and our results of operations.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of September 30, 2023. We maintain disclosure controls and procedures that are designed to provide reasonable assurance that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow for timely decisions regarding required disclosure. Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on such evaluation, our Chief Executive Officer and Executive Vice President and Chief Financial Officer concluded that, as of September 30, 2023, our disclosure controls and procedures were not effective due to the material weakness in internal control over financial reporting, described below.

Changes in Internal Controls Over Financial Reporting

Other than the remediation efforts described below, there were no changes in our internal control over financial reporting that occurred during the quarter ended September 30, 2023, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Material Weakness in Internal Control over Financial Reporting

During the year ended December 31, 2022, management identified a deficiency constituting a material weakness related to the design and implementation of information technology general controls ("ITGCs") related to the implementation of our new global enterprise resource planning system ("ERP") utilized in the preparation of our consolidated financial statements. Specifically, we did not design and maintain user access controls to adequately restrict user and privileged access to the financial application and data to appropriate Company personnel.

The material weakness identified above did not result in any identified misstatements to our consolidated interim financial statements, and our management has concluded that the consolidated financial statements present fairly, in all material respects, our financial position, results of operations, and cash flows in conformity with U.S. GAAP.

Remediation Efforts

We have commenced measures to remediate the identified material weakness. Management has been and will continue designing and implementing an improved process for requesting, authorizing, and reviewing user access to key systems which impact our financial reporting, including identifying access to roles where manual business process controls may be required. This implementation will include the addition of detection controls which will include the review of user access and activity logs related to systems that were accessed. We will also enhance the training of our personnel regarding their roles and responsibilities within the information technology general controls objectives and activities. The material weakness will not be considered remediated until management designs and implements effective controls that operate for a sufficient period of time for management to conclude, through testing, that the controls are operating effectively. The material weakness is not considered remediated as of September 30, 2023 as remediation efforts are ongoing.

PART II. OTHER INFORMATION

Item 1 Legal Proceedings.

None.

Item 1A Risk Factors.

Reference is made to the Risk Factors included in our Fiscal Year 2022 Form 10-K. Other than the risk factors below, there have been no material changes to our risk factors from those disclosed under "Risk Factors" in Part I, Item 1A of our Fiscal Year 2022 Form 10-K.

Our recurring operating losses and negative cash flows raise substantial doubt about our ability to continue as a going concern. We will need additional financing to execute our business plan and fund our operations.

Since inception, and continuing during the nine months ended September 30, 2023, we have experienced recurring operating losses and negative cash flows and we expect to continue to generate operating losses and consume significant cash resources in the foreseeable future, particularly as we increase our research and development spending as we develop and seek regulatory approval for the LUNA System and enhancements to our digital surgery and Performance-Guided Surgery product offerings. Management has concluded that substantial doubt exists about our ability to continue as a going concern as a result of anticipated capital needs in conjunction with past recurring losses and an accumulated deficit. As of September 30, 2023, our accumulated deficit was \$922.1 million and our working capital was \$33.8 million. We believe that our existing cash, cash equivalents and short-term investments, together with cash received from product, service, and lease sales will be sufficient to meet our anticipated cash needs into the late second quarter of 2024. However, we will need additional financing to implement our next generation products strategy. Management's plans to obtain additional resources for the Company may include additional sales of equity, traditional financing, such as loans, entry into strategic collaborations, entry into an out-licensing arrangement or provision of additional distribution rights in some or all of its markets. However, management cannot provide any assurance that the Company will be successful in accomplishing any or all of its plans. If sufficient funds are not received on a timely basis, the Company would then need to reduce costs further and/or pursue a plan to license or sell its assets, seek to be acquired by another entity, cease operations and/or seek bankruptcy protection. Substantial doubt about our ability to continue as a going concern may materially and adversely affect the price per share of our common stock and we may have a more difficult time obtaining financing.

The conflict in Israel and Gaza is likely to have a material adverse impact on us and our employees.

We have an office and valued employees who live and work in Israel. The current conflict in Israel could have a material adverse impact on our business and operations. Our digital surgery software development efforts are centered in our Israeli subsidiary, and the conflict could cause unexpected delays in our development efforts. Some of our employees have been called to active military duty. In addition, a third-party manufacturer of our ISU is in Israel, which could negatively impact our ability to meet our supply obligations, and export of such ISUs, and other supply management activities and materials, could be delayed by transport restrictions. If the conflict is prolonged or significantly worsens, these factors could have a material adverse impact on our business operations and employees.

Changes in funding for the FDA or future government shutdowns could cause delays in the submission and regulatory review of applications, which could negatively impact our business or prospects.

The ability of the FDA to review and provide regulatory clearance for new medical devices can be affected by a variety of factors, including government budget and funding levels, its ability to hire and retain key personnel and accept submission, applications, and the payment of user fees, and the implementation of statutory, regulatory, and policy changes.

Disruptions at the FDA and other agencies, including as a result of pandemics like COVID-19 and legislative actions, may also slow the time necessary for new medical devices to be reviewed and/or cleared by necessary government agencies, which would adversely affect our business. For example, Congress is currently negotiating reauthorization of the FDA user fee bills, which are critical to the FDA's operations. Moreover, over the last several years, including for 35 days beginning on December 22, 2018, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA, had to furlough critical employees and stop critical activities. If a prolonged government shutdown occurs, if the FDA is required to furlough review staff or other necessary employees, or if agency operations are otherwise impacted, it could significantly affect the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business or results of operations.

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

None.

Item 3 Defaults Upon Senior Securities.

None.

Item 4 Mine Safety Disclosures.

Not applicable.

Item 5 Other Information.

During the three months ended September 30, 2023, none of our directors or officers (as defined in Rule 16a-1(f) under the Exchange Act) adopted, modified or terminated a "Rule 10b5-1 trading arrangement" or a "non-Rule 10b5-1 trading arrangement", as such terms are defined in Item 408 of Regulation S-K.

Item 6. EXHIBITS

Exhibit	Powerfaction.
No.	Description
31.1 *	Certification of Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a).
31.2 *	Certification of Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a).
31.2	Section of Silver Transfer Silver Toward Tran
22.1 *	Courties to a City City or a City of the C
32.1 *	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2 *	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS *	Inline XBRL Instance Document,
101.1105	limite ADAL instance Document.
101.SCH* *	Inline XBRL Taxonomy Extension Schema Document.
101.CAL* *	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101 DEE* *	Inline VDDI Tennesses Februaries Definition Limbers Description
101.DEF* *	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB* *	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE *	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
101,111	Partie 12/12 Intology Execusion Presentation Emitouse Bottiment.
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, formatted in Inline
107	XBRL (included in Exhibit 101).

 ^{*} Filed herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Asensus Surgical, Inc.

Date: November 14, 2023	By: /s/ Anthony Fernando
	Anthony Fernando
	President and Chief Executive Officer
Date: November 14, 2023	By: /s/ Shameze Rampertab
	Shameze Rampertab
	Executive Vice President and Chief Financial Officer

SECTION 302 CERTIFICATION OF CHIEF EXECUTIVE OFFICER

- I, Anthony Fernando, certify that:
- (1) I have reviewed this Quarterly Report on Form 10-Q of Asensus Surgical, 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 we 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 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.

November 14, 2023

By: /s/ Anthony Fernando

Anthony Fernando, President and Chief Executive Officer (Principal Executive Officer)

SECTION 302 CERTIFICATION OF CHIEF FINANCIAL OFFICER

- I, Shameze Rampertab, certify that:
- (1) I have reviewed this Quarterly Report on Form 10-Q of Asensus Surgical, 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;
- 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 we 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 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.

November 14, 2023

By: /s/ Shameze Rampertab

Shameze Rampertab

Executive Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting

Officer)

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Anthony Fernando, hereby certify pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and 18 U.S.C. Section 1350, that the Quarterly Report on Form 10-Q of Asensus Surgical, Inc. (the "Company") for the quarterly period ended September 30, 2023 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Anthony Fernando

Anthony Fernando, President, and Chief Executive Officer (Principal Executive Officer)

November 14, 2023

The certification set forth above is being furnished as an Exhibit solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and is not being filed as part of the Report or as a separate disclosure document of Asensus Surgical, Inc. or the certifying officers.

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Shameze Rampertab, hereby certify pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and 18 U.S.C. Section 1350, that the Quarterly Report on Form 10-Q of Asensus Surgical, Inc. (the "Company") for the quarterly period ended September 30, 2023 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Shameze Rampertab

Shameze Rampertab, Executive Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

November 14, 2023

The certification set forth above is being furnished as an Exhibit solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and is not being filed as part of the Report or as a separate disclosure document of Asensus Surgical, Inc. or the certifying officers.