

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2022

or

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

For the transition period from _____ to _____

Commission File Number: 001-34951

XTANT MEDICAL HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

20-5313323

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

664 Cruiser Lane
Belgrade, Montana

(Address of principal executive offices)

59714

(Zip Code)

(406) 388-0480

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value \$0.000001 per share	XTNT	NYSE American LLC

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer
Non-accelerated filer

Accelerated filer
Smaller reporting company
Emerging growth company

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

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

Number of shares of common stock, \$0.000001 par value per share, of registrant outstanding at November 1, 2022: 108,659,388.

XTANT MEDICAL HOLDINGS, INC.

FORM 10-Q

September 30, 2022

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This Quarterly Report on Form 10-Q contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and are subject to the safe harbor created by those sections. For more information, see "Cautionary Statement Regarding Forward-Looking Statements."

As used in this report, unless the context indicates another meaning, the terms "we," "us," "our," "Xtant," "Xtant Medical," and the "Company" mean Xtant Medical Holdings, Inc. and its wholly owned subsidiaries, Xtant Medical, Inc., Bacterin International, Inc., and X-spine Systems, Inc., all of which are consolidated on Xtant's condensed consolidated financial statements. All intercompany balances and transactions have been eliminated in consolidation.

We own various unregistered trademarks and service marks, including our corporate logo. Solely for convenience, the trademarks and trade names in this report are referred to without the ® and ™ symbols, but such references should not be construed as any indicator that the owner of such trademarks and trade names will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend the use or display of other companies' trademarks and trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

We include our website address throughout this report for reference only. The information contained on or connected to our website is not incorporated by reference into this report.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

The statements contained in this Quarterly Report on Form 10-Q that are not purely historical are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Our forward-looking statements include, but are not limited to, statements regarding our “expectations,” “hopes,” “beliefs,” “intentions,” or “strategies” regarding the future. In addition, any statements that refer to projections, forecasts, or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “possible,” “potential,” “predict,” “project,” “should,” and “would,” as well as similar expressions, may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward looking. Forward-looking statements in this Form 10-Q may include, for example, statements about the topics below and are subject to risks and uncertainties including without limitation those described below:

- the effect of labor and staffing shortages at hospitals and other medical facilities on the number of elective procedures in which our products are used, which have adversely affected and may continue to adversely affect our revenues, as well as global and local labor shortages and loss of personnel, which have adversely affected and may continue to adversely affect our ability to produce product to meet demand;
- the effect of inflation, increased interest rates and other recessionary indicators and supply chain disruptions, which could result in reduced procedures delayed product launches, lost revenue, higher costs, decreased profit margins, and other adverse effects on our business and operating results;
- the effect of the global novel strain of coronavirus (COVID-19) pandemic and current and future variants on our business, operating results and financial condition, including our revenues primarily as a result of the reduction in procedures in which our products are used and the disruption to our customers, distributors, independent sales representatives, contract manufacturers and suppliers, as well as the global economy, supply chain and financial and credit markets;
- our ability to increase or maintain revenue or return to pre-COVID-19 revenue levels within an acceptable time period or at all and possible future impairment charges to long-lived assets and goodwill and write-downs of excess inventory if unsuccessful;
- the ability of our sales personnel, including our independent sales agents and distributors, to achieve expected results;
- our ability to innovate, develop, introduce and market new products and technologies;
- our ability to remain competitive;
- our reliance on third party suppliers and manufacturers;
- our ability to attract, retain and engage qualified technical, sales and processing personnel and members of our management team, especially in light of a tight labor market and increasing cost of living in and around the Belgrade, Montana area;
- our dependence on and ability to retain and recruit independent sales agents and distributors and motivate and incentive them to sell our products, including in particular our dependence on key independent agents for a significant portion of our revenue;
- our ability to retain and expand our agreements with group purchasing organizations (“GPOs” and independent delivery networks (“IDNs”) and sell products to members of such GPOs and IDNs;

- our ability and success in implementing key growth and process improvement initiatives designed to increase our production capacity, revenue and scale and risks associated with such growth and process improvement initiatives;
- the effect of our private label and original equipment manufacturer (“OEM”) business on our business and operating results and risks associated therewith, including fluctuations in our operating results and decreased profit margins;
- risks associated with and the effect of a shift in procedures using our products from hospitals to ambulatory surgical centers, which would put pressure on the price of our products and margins;
- our ability to obtain and maintain government and third-party coverage and reimbursement for our products;
- our ability to obtain and maintain regulatory approvals in the United States and abroad and the effect of government regulations and our compliance with government regulations;
- our ability to continue to realize enhancements related to our new enterprise resource planning (“ERP”) system;
- our ability to successfully complete and integrate future business combinations or acquisitions;
- the effect of product liability claims and other litigation to which we may be subjected and product recalls and defects;
- our ability to remain accredited with the American Association of Tissue Banks and continue to obtain a sufficient number of donor cadavers for our products;
- our ability to obtain and protect our intellectual property and proprietary rights and operate without infringing the intellectual property rights of others;
- the availability of our credit facilities;
- our ability to maintain sufficient liquidity to fund our operations and obtain financing on reasonable terms when needed;
- our anticipated use of net proceeds from our recent private placement and the possible effect of future resales of shares sold in the private placement on the trading price of our common stock;
- our ability to service our debt and comply with the covenants in our credit agreements;
- our expectations regarding higher product costs continuing to adversely affect our gross profit as a percentage of revenue in future periods; and
- our ability to maintain our stock listing on the NYSE American Exchange.

The forward-looking statements contained in this Form 10-Q are based on our current expectations and beliefs concerning future developments and their potential effects on us. There can be no assurance that future developments affecting us will be those that we have anticipated. These forward-looking statements involve a number of risks, uncertainties, or assumptions, many of which are beyond our control, which may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to, those factors described in the “*Risk Factors*” section of our Annual Report on Form 10-K for the year ended December 31, 2021 and this Form 10-Q.

Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary in material respects from those projected in these forward-looking statements. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise, except as may be required under applicable securities laws.

PART I. FINANCIAL INFORMATION**ITEM 1. FINANCIAL STATEMENTS**

XTANT MEDICAL HOLDINGS, INC.
Condensed Consolidated Balance Sheets
(In thousands, except number of shares and par value)

	As of September 30, 2022 (Unaudited)	As of December 31, 2021
ASSETS		
Current Assets:		
Cash and cash equivalents	\$ 17,363	\$ 18,243
Restricted cash	240	144
Trade accounts receivable, net of allowance for credit losses and doubtful accounts of \$549 and \$552, respectively	9,839	7,154
Inventories	16,993	17,945
Prepaid and other current assets	673	844
Total current assets	<u>45,108</u>	<u>44,330</u>
Property and equipment, net	5,669	5,212
Right-of-use asset, net	1,490	1,258
Goodwill	3,205	3,205
Intangible assets, net	358	400
Other assets	219	287
Total Assets	<u>\$ 56,049</u>	<u>\$ 54,692</u>
LIABILITIES & STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable	\$ 3,779	\$ 2,615
Accrued liabilities	5,021	4,349
Current portion of lease liability	443	462
Current portion of finance lease obligations	61	31
Line of credit	720	3,620
Current portion of long-term debt	1,335	—
Total current liabilities	<u>11,359</u>	<u>11,077</u>
Long-term Liabilities:		
Lease liability, less current portion	1,094	842
Finance lease obligation, less current portion	197	103
Long-term debt, plus premium and less issuance costs	10,626	11,787
Total Liabilities	<u>23,276</u>	<u>23,809</u>
Commitments and Contingencies (Note 11)		
Stockholders' Equity:		
Preferred stock, \$0.000001 par value; 10,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, \$0.000001 par value; 300,000,000 shares authorized; 101,981,250 shares issued and outstanding as of September 30, 2022 and 87,068,980 shares issued and outstanding as of December 31, 2021	—	—
Additional paid-in capital	274,234	266,068
Accumulated deficit	(241,461)	(235,185)
Total Stockholders' Equity	<u>32,773</u>	<u>30,883</u>
Total Liabilities & Stockholders' Equity	<u>\$ 56,049</u>	<u>\$ 54,692</u>

See notes to unaudited condensed consolidated financial statements.

XTANT MEDICAL HOLDINGS, INC.
Condensed Consolidated Statements of Operations
(Unaudited, in thousands, except number of shares and per share amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Revenue				
Orthopedic product sales	\$ 14,462	\$ 13,743	\$ 42,689	\$ 41,193
Other revenue	—	34	10	100
Total Revenue	<u>14,462</u>	<u>13,777</u>	<u>42,699</u>	<u>41,293</u>
Cost of sales	<u>6,566</u>	<u>6,586</u>	<u>18,868</u>	<u>16,498</u>
Gross Profit	<u>7,896</u>	<u>7,191</u>	<u>23,831</u>	<u>24,795</u>
Operating Expenses				
General and administrative	3,729	3,107	11,496	10,307
Sales and marketing	5,838	5,267	16,683	15,712
Research and development	229	262	683	719
Total Operating Expenses	<u>9,796</u>	<u>8,636</u>	<u>28,862</u>	<u>26,738</u>
Loss from Operations	<u>(1,900)</u>	<u>(1,445)</u>	<u>(5,031)</u>	<u>(1,943)</u>
Other Expense				
Interest expense	(440)	(329)	(1,197)	(529)
Total Other Expense	<u>(440)</u>	<u>(329)</u>	<u>(1,197)</u>	<u>(529)</u>
Net Loss Before Provision for Income Taxes	<u>(2,340)</u>	<u>(1,774)</u>	<u>(6,228)</u>	<u>(2,472)</u>
Provision for Income Taxes Current and Deferred	(13)	(30)	(48)	(94)
Net Loss	<u>\$ (2,353)</u>	<u>\$ (1,804)</u>	<u>\$ (6,276)</u>	<u>\$ (2,566)</u>
Net loss per share:				
Basic	\$ (0.03)	\$ (0.02)	\$ (0.07)	\$ (0.03)
Dilutive	\$ (0.03)	\$ (0.02)	\$ (0.07)	\$ (0.03)
Shares used in the computation:				
Basic	93,278,610	86,763,210	89,236,832	84,926,656
Dilutive	93,278,610	86,763,210	89,236,832	84,926,656

See notes to unaudited condensed consolidated financial statements.

XTANT MEDICAL HOLDINGS, INC.
Condensed Consolidated Statements of Equity
(Unaudited, in thousands, except number of shares)

	Common Stock		Additional Paid-In- Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance at December 31, 2021	87,068,980	\$ —	\$ 266,068	\$ (235,185)	\$ 30,883
Common stock issued on vesting of restricted stock units	244,721	—	—	—	—
Stock-based compensation	—	—	613	—	613
Net loss	—	—	—	(2,213)	(2,213)
Balance at March 31, 2022	87,313,701	—	266,681	(237,398)	29,283
Stock-based compensation	—	—	571	—	571
Net loss	—	—	—	(1,710)	(1,710)
Balance at June 30, 2022	87,313,701	—	267,252	(239,108)	28,144
Private placement of common stock, net of issuance costs of \$409	14,060,315	—	5,225	—	5,225
Warrants issued in connection with the private placement	—	—	1,116	—	1,116
Common stock issued on vesting of restricted stock units	607,234	—	—	—	—
Stock-based compensation	—	—	641	—	641
Net loss	—	—	—	(2,353)	(2,353)
Balance at September 30, 2022	101,981,250	\$ —	\$ 274,234	\$ (241,461)	\$ 32,773

	Common Stock		Additional Paid-In- Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance at December 31, 2020	77,573,680	\$ —	\$ 244,850	\$ (230,336)	\$ 14,514
Private placement of common stock, net of issuance costs of \$1,926	8,888,890	—	12,831	—	12,831
Warrants issued in connection with the private placement	—	—	5,243	—	5,243
Warrants issued in connection with the private placement to placement agents	—	—	351	—	351
Common stock issued on vesting of restricted stock units	244,716	—	—	—	—
Stock-based compensation	—	—	456	—	456
Net loss	—	—	—	(29)	(29)
Balance at March 31, 2021	86,707,286	—	263,731	(230,365)	33,366
Stock-based compensation	—	—	465	—	465
Gain on debt extinguishment	—	—	786	—	786
Net loss	—	—	—	(733)	(733)
Balance at June 30, 2021	86,707,286	—	264,982	(231,098)	33,884
Common stock issued on vesting of restricted stock units	104,856	—	—	—	—
Withholding of common stock upon vesting of restricted stock units	(15,967)	—	(23)	—	(23)
Stock-based compensation	—	—	580	—	580
Net loss	—	—	—	(1,804)	(1,804)
Balance at September 30, 2021	86,796,175	\$ —	\$ 265,539	\$ (232,902)	\$ 32,637

See notes to unaudited condensed consolidated financial statements.

XTANT MEDICAL HOLDINGS, INC.
Condensed Consolidated Statements of Cash Flows
(Unaudited, in thousands)

	Nine Months Ended September 30,	
	2022	2021
Operating activities:		
Net loss	\$ (6,276)	\$ (2,566)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:		
Depreciation and amortization	971	1,041
Gain on disposal of fixed assets	(91)	(164)
Non-cash interest	175	38
Non-cash rent	2	8
Stock-based compensation	1,825	1,501
Provision for reserve (recovery) on accounts receivable	277	(25)
Provision for excess and obsolete inventory	1,568	572
Changes in operating assets and liabilities:		
Accounts receivable	(2,962)	584
Inventories	(616)	1,128
Prepaid and other assets	239	(126)
Accounts payable	1,164	(592)
Accrued liabilities	671	(1,383)
Net cash (used in) provided by operating activities	(3,053)	16
Investing activities:		
Purchases of property and equipment and intangible assets	(1,321)	(1,489)
Proceeds from sale of fixed assets	184	194
Net cash used in investing activities	(1,137)	(1,295)
Financing activities:		
Payment of taxes from withholding of common stock on vesting of restricted stock units	—	(23)
Payments on financing leases	(35)	(42)
Costs associated with refinancing	—	(136)
Payments on long-term debt	—	(411)
Borrowings on line of credit	36,680	22,767
Repayments of line of credit	(39,580)	(23,029)
Proceeds from private placement, net of cash issuance costs	6,341	18,426
Net cash provided by financing activities	3,406	17,552
Net change in cash and cash equivalents and restricted cash	(784)	16,273
Cash and cash equivalents and restricted cash at beginning of period	18,387	2,341
Cash and cash equivalents and restricted cash at end of period	\$ 17,603	\$ 18,614
Reconciliation of cash and restricted cash reported in the condensed consolidated balance sheets		
Cash and cash equivalents	\$ 17,363	\$ 18,175
Restricted cash	240	439
Total cash and restricted cash reported in the condensed consolidated balance sheets	\$ 17,603	\$ 18,614

See notes to unaudited condensed consolidated financial statements.

Notes to Unaudited Condensed Consolidated Financial Statements

(I) Business Description, Basis of Presentation and Summary of Significant Accounting Policies

Business Description and Basis of Presentation

The accompanying condensed consolidated financial statements include the accounts of Xtant Medical Holdings, Inc. (“Xtant”), a Delaware corporation, and its wholly owned subsidiaries, Xtant Medical, Inc. (“Xtant Medical”), a Delaware corporation, Bacterin International, Inc. (“Bacterin”), a Nevada corporation, and X-spine Systems, Inc. (“X-spine”), an Ohio corporation (Xtant, Xtant Medical, Bacterin, and X-spine are jointly referred to herein as the “Company” or sometimes “we,” “our,” or “us”). All intercompany balances and transactions have been eliminated in consolidation.

Xtant is a global medical technology company focused on the design, development, and commercialization of a comprehensive portfolio of orthobiologics and spinal implant systems to facilitate spinal fusion in complex spine, deformity, and degenerative procedures.

At the onset of, and at various times during, the COVID-19 pandemic, hospitals and other medical facilities cancelled or deferred elective procedures, diverted resources to patients suffering from infections and limited access for non-patients, including our direct and indirect sales representatives. Especially during waves of increased cases and hospitalizations, surgeons and their patients have been required or chosen to defer procedures in which our products otherwise would be used, and many facilities that specialize in the procedures in which our products otherwise would be used have experienced temporary closures or reduced operating hours. These circumstances have negatively impacted, and may continue to negatively impact, the ability of our employees, independent sales representatives and distributors to effectively market and sell our products, which has had and may continue to have a material adverse effect on our revenues.

The accompanying condensed consolidated balance sheet as of December 31, 2021, which has been derived from audited financial statements, and the unaudited interim condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America. They do not include all disclosures required by generally accepted accounting principles for annual consolidated financial statements, but in the opinion of management include all adjustments, consisting only of normal recurring items, necessary for a fair presentation.

Interim results are not necessarily indicative of results that may be achieved in the future for the full year ending December 31, 2022.

These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto, which are included in Xtant’s Annual Report on Form 10-K for the year ended December 31, 2021. The accounting policies set forth in those annual consolidated financial statements are the same as the accounting policies utilized in the preparation of these condensed consolidated financial statements, except as modified for appropriate interim consolidated financial statement presentation.

Private Placement

On August 25, 2022, the Company closed the first tranche of a private placement (the “First Closing”) with several accredited investors (the “Private Placement”). At the First Closing, the Company sold approximately 14.1 million shares of common stock of the Company (collectively, the “Shares”) and warrants to purchase approximately 3.5 million shares of common stock (collectively, the “Warrants”) for an aggregate purchase price of approximately \$6.75 million. We received net cash proceeds of approximately \$6.3 million, after deducting fees and other estimated offering expenses, from the First Closing.

The closing of the second tranche of the Private Placement (the “Second Closing”) occurred on October 7, 2022. At the Second Closing, the Company sold an additional approximately 6.2 million shares of common stock of the Company and warrants to purchase approximately 1.6 million shares of common stock for an aggregate purchase price of approximately \$3.0 million.

The Warrants, described in more detail in *Note 10, "Warrants"*, have an exercise price of \$0.48 per share, are subject to customary anti-dilution, but not price protection, adjustments, are immediately exercisable and expire on the five-year anniversary of the First Closing.

Use of Estimates

The preparation of the condensed consolidated financial statements requires management of the Company to make a number of estimates and assumptions relating to the reported amount of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements and the reported amounts of revenue and expenses during the period. Significant estimates include the carrying amount of property and equipment, goodwill and intangible assets and liabilities, valuation allowances for trade receivables, inventory and deferred income tax assets and liabilities, current and long-term lease obligations and corresponding right-of-use asset and estimates for the fair value of long-term debt, stock options and other equity awards upon which the Company determines stock-based compensation expense. Actual results could differ from those estimates.

Restricted Cash

Cash and cash equivalents classified as restricted cash on our condensed consolidated balance sheets are restricted as to withdrawal or use under the terms of certain credit agreements. The September 30, 2022 balance included lockbox deposits that are temporarily restricted due to timing at the period end. The lockbox deposits are applied against our line of credit the next business day.

Long-Lived Assets

The Company reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recovered. No impairments of long-lived assets were recorded for the three and nine months ended September 30, 2022 and 2021.

Goodwill

Goodwill represents the excess of costs over fair value of assets of businesses acquired. Goodwill and intangible assets acquired in a purchase business combination and determined to have indefinite useful lives are not amortized. Instead, they are tested for impairment at least annually, and whenever events or circumstances indicate, the carrying amount of the asset may not be recoverable. No impairments of goodwill were recorded for the three and nine months ended September 30, 2022 and 2021.

Net Loss Per Share

Basic net loss per share is computed by dividing net loss by the weighted average number of shares of common stock outstanding. Shares issued during the period and shares reacquired during the period are weighted for the portion of the period that they were outstanding. Diluted net loss per share is computed in a manner consistent with that of basic earnings per share while giving effect to all potentially dilutive shares of common stock outstanding during the period, which include the assumed exercise of stock options and warrants using the treasury stock method. Our diluted earnings per share is the same as basic earnings per share, as the effects of including 17,192,048 and 14,138,224 outstanding stock options, restricted stock units and warrants for the three and nine months ended September 30, 2022 and 2021, respectively, are anti-dilutive.

Fair Value of Financial Instruments

The carrying values of financial instruments, including trade accounts receivable, accounts payable, accrued liabilities, and long-term debt, approximate their fair values based on terms and related interest rates as of September 30, 2022 and December 31, 2021.

(2) Revenue

In the United States, we generate most of our revenue from independent commissioned sales agents. We consign our orthobiologics products to hospitals and consign or loan our spinal implant sets to the independent sales agents. The spinal implant sets typically contain the instruments, disposables, and spinal implants required to complete a surgery. Consigned sets are managed by the sales agent to service hospitals that are high volume users for multiple procedures.

We ship replacement inventory to independent sales agents to replace the consigned inventory used in surgeries. Loaned sets are returned to the Company's distribution center, replenished, and made available to sales agents for the next surgical procedure.

For each surgical procedure, the sales agent reports use of the product by the hospital and, as soon as practicable thereafter, ensures that the hospital provides a purchase order to the Company. Upon receipt of the hospital purchase order, the Company invoices the hospital, and revenue is recognized in the proper period. Additionally, the Company sells product directly to domestic and international stocking resellers and private label resellers. Upon receipt and acceptance of a purchase order from a stocking reseller, the Company ships product and invoices the reseller. The Company recognizes revenue when control of the promised goods is transferred to the customer, in an amount that reflects the consideration the Company expects to collect in exchange for those goods or services. There is generally no customer acceptance or other condition that prevents the Company from recognizing revenue in accordance with the delivery terms for these sales transactions.

The Company operates in one reportable segment with its net revenue derived primarily from the sale of orthopaedic medical products and devices across North America, Europe, Asia Pacific, and Latin America. Sales are reported net of returns. The following table presents revenues from these product lines for the three and nine months ended September 30, 2022 and 2021 (in thousands):

	Three Months Ended September 30, 2022	Percentage of Total Revenue	Three Months Ended September 30, 2021	Percentage of Total Revenue
Orthobiologics	\$ 12,046	83%	\$ 10,795	78%
Spinal implant	2,416	17%	2,948	22%
Other revenue	—	0%	34	0%
Total revenue	<u>\$ 14,462</u>	<u>100%</u>	<u>\$ 13,777</u>	<u>100%</u>

	Nine Months Ended September 30, 2022	Percentage of Total Revenue	Nine Months Ended September 30, 2021	Percentage of Total Revenue
Orthobiologics	\$ 34,614	81%	\$ 31,264	76%
Spinal implant	8,075	19%	9,929	24%
Other revenue	10	0%	100	0%
Total revenue	<u>\$ 42,699</u>	<u>100%</u>	<u>\$ 41,293</u>	<u>100%</u>

(3) Receivables

The Company's provision for current expected credit loss is determined based on historical collection experience adjusted for current economic conditions affecting collectability. Actual customer collections could differ from estimates. Account balances are charged to the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. Provisions to the allowance for credit losses are charged to expense. Activity within the allowance for credit losses was as follows for the three and nine months ended September 30, 2022 and 2021 (in thousands):

	September 30, 2022	September 30, 2021
Balance at January 1	\$ 552	\$ 653
Provision for current expected credit losses	191	(63)
Write-offs charged against allowance	(173)	(36)
Balance at March 31	570	554
Provision for current expected credit losses	(49)	(81)
Write-offs charged against allowance	(11)	(3)
Balance at June 30	510	470
Provision for current expected credit losses	54	118
Write-offs charged against allowance	(15)	(12)
Balance at September 30	\$ 549	\$ 576

(4) Inventories

Inventories consist of the following (in thousands):

	September 30, 2022	December 31, 2021
Raw materials	\$ 5,121	\$ 5,613
Work in process	957	571
Finished goods	10,915	11,761
Total	\$ 16,993	\$ 17,945

(5) Property and Equipment, Net

Property and equipment, net are as follows (in thousands):

	September 30, 2022	December 31, 2021
Equipment	\$ 6,302	\$ 5,541
Computer equipment	1,090	828
Computer software	490	490
Furniture and fixtures	104	94
Leasehold improvements	4,333	3,994
Other	10	10
Surgical instruments	11,307	11,424
Total cost	23,636	22,381
Less: accumulated depreciation	(17,967)	(17,169)
Property and equipment, net	\$ 5,669	\$ 5,212

Depreciation expense related to property and equipment, including property under finance leases, for the three months ended September 30, 2022 and 2021 was \$0.4 million and \$0.3 million, respectively, and \$1 million for both the nine months ended September 30, 2022 and 2021.

(6) Intangible Assets

The following table sets forth information regarding intangible assets (in thousands):

	September 30, 2022	December 31, 2021
Patents	\$ 807	\$ 847
Accumulated amortization	(449)	(447)
Intangible assets, net	<u>\$ 358</u>	<u>\$ 400</u>

(7) Accrued Liabilities

Accrued liabilities consist of the following (in thousands):

	September 30, 2022	December 31, 2021
Cash compensation/commissions payable	\$ 3,844	\$ 3,184
Other accrued liabilities	1,177	1,165
Accrued liabilities	<u>\$ 5,021</u>	<u>\$ 4,349</u>

(8) Debt

Long-term debt consists of the following (in thousands):

	September 30, 2022	December 31, 2021
Amounts due under the Term Facility	\$ 12,000	\$ 12,000
Accrued end-of-term payments	182	83
Less: unamortized debt issuance costs	(221)	(296)
Less: current maturities	(1,335)	—
Long-term debt	<u>\$ 10,626</u>	<u>\$ 11,787</u>

On March 7, 2022, the Company's term loan agreement and revolving credit agreement were amended to, among other things, (i) provide for a waiver of compliance with respect to the Company's minimum adjusted EBITDA requirement if and so long as the Company's liquidity (as specifically defined in the term loan agreement and revolving credit agreement) is in excess of \$14 million and there is not otherwise an event of default under the term loan agreement and revolving credit agreement, commencing March 31, 2022, and (ii) re-set the date certain fees payable in connection with optional prepayments are determined to the date the amendment was executed and consequently extend such fees' original expiration. In addition, the final payment fees associated with the term loan were increased by 25 basis points.

The effective rate of the term loan, inclusive of amortization of debt issuance costs and accretion of the final payment, was 11.53% as of September 30, 2022. The effective rate of the revolving credit agreement was 7.07% as of September 30, 2022. As of September 30, 2022, the Company had \$7.3 million available under the revolving credit agreement.

On October 27, 2022, the Company's term loan and revolving credit agreements were amended to transition the reference rate from LIBOR to term SOFR. The term SOFR reference rate will apply to amounts outstanding and draws that place on or after November 1, 2022.

(9) Stock-Based Compensation

Stock option activity, including options granted under the Xtant Medical Holdings, Inc. 2018 Equity Incentive Plan, as amended (the “2018 Plan”), and the Amended and Restated Xtant Medical Equity Incentive Plan and options granted to new hires to purchase shares of our common stock outside of any stockholder-approved plan, was as follows for the nine months ended September 30, 2022 and 2021:

	2022			2021		
	Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contract Term (years)	Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contract Term (years)
Outstanding at January 1	3,201,666	\$ 1.80		2,190,892	\$ 2.25	
Granted	109,164	\$ 0.65		1,012,083	\$ 1.27	
Cancelled or expired	(443,125)	\$ 2.39		(269)	\$ 314.19	
Outstanding at September 30	2,867,705	\$ 1.66	8.1	3,202,706	\$ 1.92	9.1
Exercisable at September 30	828,978	\$ 2.37	7.8	210,028	\$ 9.02	7.4

Restricted stock unit activity for awards granted under the 2018 Plan was as follows for the nine months ended September 30, 2022 and 2021:

	2022		2021	
	Shares	Weighted Average Fair Value at Grant Date Per Share	Shares	Weighted Average Fair Value at Grant Date Per Share
Outstanding at January 1	2,970,104	\$ 1.39	2,503,698	\$ 1.54
Granted	1,898,808	\$ 0.53	1,249,002	\$ 1.27
Vested	(851,955)	\$ 1.33	(349,572)	\$ 1.92
Cancelled	(318,805)	\$ 1.38	—	\$ —
Outstanding at September 30	3,698,152	\$ 0.96	3,403,128	\$ 1.40

At the 2022 annual meeting of stockholders held on October 26, 2022, our shareholders approved an amendment to the 2018 Plan to increase the number of shares of common stock available thereunder by 8,500,000 shares.

(10) Warrants

As noted in Note 1, “*Business Description, Basis of Presentation and Summary of Significant Accounting Policies,*” on August 25, 2022, the Company issued the Warrants. The Warrants meet all the requirements to be classified as equity awards in accordance with Accounting Standards Codification (“ASC”) No. 815-40. The number of shares of Company common stock issuable upon exercise of the Warrants is subject to standard and customary anti-dilution provisions for stock splits, stock dividends, or similar transactions. In addition, the Warrants include a buy-out right whereby the holders of such warrants may put the warrants back to the Company or its successor in the event of a purchase, tender or exchange offer accepted by 50% or more of the Company’s holders of common stock and not approved by the Company’s board of directors. The buy-out amount is equal to the Black-Scholes value of the warrants on the date the triggering transaction is consummated based on certain inputs as defined in the Warrant agreement. The consideration to be paid if the buy-out provision is triggered shall be in the same type or form of consideration that is being offered and paid to the holders of Company common stock in connection with the triggering transaction.

While the Warrants are classified as a component of equity, we were required to allocate the proceeds of the Private Placement between the shares of common stock and the Warrants issued based on their relative fair values. The fair value of the Warrants, \$0.40 per warrant, issued in connection with the Private Placement was determined using a Black Scholes model. Significant assumptions in the model included contractual term (5 years) and the estimated volatility factor of the Company's stock (107%).

Our warrant activity during the nine months ended September 30, 2022 was as follows:

	Common Stock Warrants	Weighted Average Exercise Price
Outstanding at January 1, 2022	7,111,112	\$ 2.29
Issued	3,515,079	0.48
Outstanding at September 30, 2022	10,626,191	\$ 1.69

(11) Commitments and Contingencies

Operating Leases

We lease three office facilities as of September 30, 2022 in Belgrade, Montana under non-cancelable operating lease agreements. On July 14, 2022, the Company's lease agreement for facilities at 600 Cruiser Lane in Belgrade, Montana was amended to, among other things, extend the lease term through October 2025 to align the lease term with the Company's lease agreement for facilities at 664 Cruisier Lane in Belgrade, Montana. In addition, the Company's lease agreement for facilities at 732 Cruiser Lane in Belgrade, Montana was amended on July 29, 2022 to extend the lease term through October 2025. We have the option to extend certain leases to five or ten-year term(s), and we have the right of first refusal on any sale. As of September 30, 2022, the weighted-average remaining lease term was 3.1 years.

Present Value of Long-term Leases

(in thousands):	September 30, 2022
Right-of-use assets, net	\$ 1,490
Current portion of lease liability	\$ 443
Lease liability, less current portion	1,094
Total lease liability	\$ 1,537

Future minimum payments for the next five years and thereafter as of September 30, 2022 under these long-term operating leases are as follows (in thousands):

Remainder of 2022	131
2023	534
2024	559
2025	470
Total future minimum lease payments	1,694
Less amount representing interest	(157)
Present value of obligations under operating leases	1,537
Less current portion	(443)
Long-term operating lease obligations	\$ 1,094

Rent expense was \$0.1 million for both the three months ended September 30, 2022 and 2021 and \$0.4 million for both the nine months ended September 30, 2022 and 2021. We have no contingent rent agreements.

Litigation

We are subject to potential liabilities under government regulations and various claims and legal actions that are pending or may be asserted from time to time. These matters arise in the ordinary course and conduct of our business and may include, for example, commercial, product liability, intellectual property, and employment matters. When we believe that a loss is probable and reasonably estimable, we record a charge on our condensed consolidated statements of operations for our estimated loss. We do not believe that the ultimate resolution of any such potential liabilities, claims or legal actions will have a material adverse effect upon our consolidated financial position, results of operations, or cash flows.

Indemnifications

Our indemnification arrangements generally include limited warranties and certain provisions for indemnifying customers against liabilities if our products or services infringe a third-party's intellectual property rights. To date, we have not incurred any material costs as a result of such warranties or indemnification provisions and have not accrued any liabilities related to such obligations in the accompanying condensed consolidated financial statements.

We have also agreed to indemnify our directors and executive officers for costs associated with any fees, expenses, judgments, fines, and settlement amounts incurred by any of these persons in any action or proceeding to which any of those persons is, or is threatened to be, made a party by reason of the person's service as a director or officer, including any action by us, arising out of that person's services as our director or officer or that person's services provided to any other company or enterprise at our request.

(12) Income Taxes

In evaluating the realizability of the net deferred tax assets, we take into account a number of factors, primarily relating to the ability to generate taxable income. Where it is determined that it is likely that we will be unable to realize deferred tax assets, a valuation allowance is established against the applicable portion of the deferred tax asset. Because it cannot be accurately determined when or if we will become profitable, a valuation allowance was provided against the entire deferred income tax asset balance.

The Company did not recognize any interest or penalties related to income taxes for the three and nine months ended September 30, 2022 and 2021.

(13) Supplemental Disclosure of Cash Flow Information

Supplemental cash flow information is as follows (in thousands):

	Nine Months Ended September 30,	
	2022	2021
Supplemental disclosure of cash flow information		
<i>Cash paid during the period for:</i>		
Interest	\$ 1,022	\$ 485
<i>Non-cash activities:</i>		
Fixed assets acquired under finance lease	\$ 159	\$ 163
Revaluation of lease liability and right of use asset	\$ 234	\$ —
Gain on extinguishment of Second A&R Credit Agreement	\$ —	\$ 786
Extinguishment of Second A&R Credit Agreement financed by line of credit	\$ —	\$ 3,755
Prepaid debt issuance costs	\$ —	\$ 75
Warrants issued in connection with the Private Placement to placement agents	\$ —	\$ 351

(14) Related Party Transactions

As described in more detail under Note 1, “*Business Description and Summary of Significant Accounting Policies*” in the Company’s Annual Report on Form 10-K for the year ended December 31, 2021, we are party to an Investor Rights Agreement, Registration Rights Agreements and certain other agreements with OrbiMed Royalty Opportunities II, LP (“Royalty Opportunities”) and ROS Acquisition Offshore LP (“ROS”), which are funds affiliated with OrbiMed Advisors LLC (“OrbiMed”). OrbiMed beneficially owns 72% of the Company’s common stock.

All related party transactions are reviewed and approved by the Audit Committee or the disinterested members of the full Board of Directors.

(15) Segment and Geographic Information

The Company’s management reviews financial results and manages the business on an aggregate basis. Therefore, financial results are reported in a single operating segment: the development, manufacture, and marketing of orthopedic medical products and devices.

The Company attributes revenues to geographic areas based on the location of the customer. Approximately 99% of sales were in the United States for the three months ended September 30, 2022 and 2021, and 99% for the nine months ended September 30, 2022 and 2021. Total revenue by major geographic area is as follows (in thousands):

	Three Months Ended September 30,	
	2022	2021
United States	\$ 14,370	\$ 13,629
Rest of world	92	148
Total revenue	\$ 14,462	\$ 13,777

	Nine Months Ended September 30,	
	2022	2021
United States	\$ 42,089	\$ 40,813
Rest of world	610	480
Total revenue	\$ 42,699	\$ 41,293

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

This Management's Discussion and Analysis provides material historical and prospective disclosures intended to enable investors and other users to assess our financial condition and results of operations. The following discussion should be read in conjunction with our condensed consolidated financial statements and accompanying notes included in this Quarterly Report on Form 10-Q and the audited consolidated financial statements and accompanying notes thereto and Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021. In addition to historical financial information, the following discussion and analysis contains forward-looking statements that involve risks, uncertainties, and assumptions. Some of the numbers included herein have been rounded for the convenience of presentation. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including those discussed above in "Cautionary Statement Regarding Forward-Looking Statements" and elsewhere in this Form 10-Q.

Business Overview

We develop, manufacture and market regenerative medicine products and medical devices for domestic and international markets. Our products serve the specialized needs of orthopedic and neurological surgeons, including orthobiologics for the promotion of bone healing, implants and instrumentation for the treatment of spinal disease. We promote our products in the United States through independent distributors and stocking agents, supported by direct employees.

We have an extensive sales channel of independent commissioned agents and stocking distributors in the United States representing some or all of our products. We also maintain a national accounts program to enable our agents to gain access to integrated delivery network hospitals ("IDNs") and through group purchasing organizations ("GPOs"). We have biologics contracts with major GPOs, as well as extensive access to IDNs across the United States for both biologics and spine hardware systems. While our focus is the United States market, we promote and sell our products internationally through stocking distribution partners in Canada, Mexico, South America, Australia, and certain Pacific region countries.

We have focused and intend to continue to focus primarily on four key growth initiatives: (1) introduce new products; (2) expand our distribution network; (3) penetrate adjacent markets; and (4) leverage our growth platform with technology and strategic acquisitions. Xtant has continued to experience growth from the two new products introduced in 2021, and we will continue to focus on growing those lines. Concurrently, our penetration into certain adjacent markets has slowed due to recently limited availability of production labor in our local area. Initiatives are underway to improve our recruitment, training capabilities and production levels in order to better penetrate new market opportunities. While the intent of these four key growth initiatives is to increase our future revenues, no assurance can be provided that we will be successful in implementing these growth initiatives or increasing our future revenues.

Recent Private Placement

On August 25, 2022, we issued in the first tranche of a private placement with several accredited investors approximately 14.1 million shares of our common stock at a purchase price of \$0.48 per share and warrants to purchase approximately 3.5 million shares of our common stock. The warrants have an exercise price of \$0.48 per share, are subject to customary anti-dilution, but not price protection, adjustments, are immediately exercisable and expire on the five-year anniversary of the date of issuance. We received net cash proceeds of approximately \$6.3 million, after deducting fees and other estimated offering expenses, from the private placement. The closing of the second tranche of the private placement occurred on October 7, 2022, at which we sold an additional approximately 6.2 million shares of our common stock and warrants to purchase approximately 1.6 million shares of common stock for an aggregate purchase price of approximately \$3.0 million. The warrants issued at the second closing are identical to the warrants issued at the first closing and also expire on the five-year anniversary of the first closing. We expect to use these net proceeds for working capital and other general corporate purposes.

Impact of the COVID-19 Pandemic

At the onset of, and at various times during, the COVID-19 pandemic, hospitals and other medical facilities have cancelled or deferred elective procedures, diverted resources to patients suffering from infections, and limited access for non-patients, including our direct and indirect sales representatives. Because of these circumstances, surgeons and their patients have deferred, and may continue to defer, procedures in which our products otherwise would be used. In addition, many facilities that specialize in procedures in which our products are used have experienced, and may continue to experience, staffing shortages, temporary closures, and/or reduced operating hours. These circumstances have negatively impacted, and may continue to negatively impact, the number of elective procedures being conducted and the ability of our employees, independent sales representatives and distributors to effectively market and sell our products, which has had and may continue to have a material adverse effect on our revenues.

During the first quarter of 2022, spine and other surgery procedure volumes were negatively impacted in many of our key markets, due to cancellations and/or postponements of procedures as a result of hospitalizations of COVID-19 patients, restrictions on elective procedures and staffing shortages in our key markets, which negatively impacted our first quarter 2022 revenues. This reduction in elective procedures and staffing shortages subsided during the second quarter of 2022, but could reoccur if there is another wave or sustained resurgence of COVID-19 cases and hospitalizations.

The COVID-19 pandemic also has caused and may continue to cause adverse effects on general commercial activity and the global economy and supply chain, disrupting our ability to obtain raw materials, components and products. The pandemic has also adversely affected, and may continue to adversely affect, our distributors, independent sales representatives, customers, contract manufacturers and suppliers and their respective businesses, which in turn, have adversely affected, and may continue to adversely affect, our business and operations.

Although we continue to monitor the impact of the COVID-19 pandemic on our business, operations and financial results, the full extent to which the COVID-19 pandemic will continue to impact our business during the remainder of 2022 will depend on future developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning COVID-19 variants, actions taken to contain or treat the impact of COVID-19, the availability, acceptance and effectiveness of vaccines, future resurgences of the virus and its variants, the level of any government restrictions, patient capacity at hospitals and healthcare systems, and the willingness and ability of patients to seek care and treatment due to safety concerns or financial hardship. If our revenues continue to decline and do not recover to pre-COVID-19 pandemic levels, we may be required to incur impairment charges to our long-lived assets and goodwill and write-off excess inventory, which would likely adversely affect our future operating results.

Results of Operations

Comparison of Three and Nine Months Ended September 30, 2022 and September 30, 2021

Revenue

Total revenue for the three and nine months ended September 30, 2022 was \$14.5 million and \$42.7 million, respectively, which represents increases of 5% and 3%, respectively, compared to \$13.8 million and \$41.3 million for the three and nine months ended September 30, 2021, respectively. These revenue increases are attributed primarily to introductions of new products, specifically OsteoVive® Plus and OsteoFactor™.

Cost of Sales and Gross Profit

Cost of sales consists primarily of manufacturing and product purchase costs as well as depreciation of surgical trays. Cost of sales also includes reserves for estimated excess inventory, inventory on consignment that may be missing and not returned, and reserves for estimated missing and damaged consigned surgical instruments. Cost of sales of \$6.6 million for the three months ended September 30, 2022 was comparable to the same prior year period. Cost of sales increased by 14%, or \$2.4 million, to \$18.9 million for the nine months ended September 30, 2022 from \$16.5 million for the nine months ended September 30, 2021. The increase in cost of sales for the nine month comparison is primarily due to additional expense of \$1.0 million related to increased reserve expense for excess and obsolete inventory and additional salaries and wages expense of \$0.6 million with the remaining increase relating primarily to higher sales levels.

Gross profit as a percentage of revenue increased to 54.6% for the three months ended September 30, 2022 compared to 52.2% for the same period in 2021 and decreased to 55.8% for the nine months ended September 30, 2022 compared to 60.0% for the same period in 2021. Of the increase for the three-month comparison, 200 basis points resulted from sales mix including greater higher margin independent agent sales and 400 basis points resulted from additional absorption of labor and overhead, partially offset by 280 basis points resulting from additional reserve expense for excess and obsolete inventory. Of the decrease for the nine-month comparison, 220 basis points resulted from higher product costs and 240 basis points results from additional reserve expense for excess and obsolete inventory. We expect higher product costs to continue to adversely affect our gross profit as a percentage of revenue in future periods.

General and Administrative

General and administrative expenses consist principally of personnel costs for corporate employees, cash-based and stock-based compensation related costs, legal, accounting and professional fees, and occupancy costs. General and administrative expenses increased 20%, or \$0.6 million, to \$3.7 million for the three months ended September 30, 2022, compared to \$3.1 million for the same period in 2021. General and administrative expenses were \$11.5 million for the nine months ended September 30, 2022, an increase of 12%, or \$1.2 million, compared to the same period in 2021. The increase for the three-month comparison is primarily attributable to additional expense of \$0.3 million related to product registrations and additional expense of \$0.3 million related to various employee compensation plans. The increase for the nine-month comparison includes additional bad debt expense of \$0.3 million, additional expense of \$0.3 million related to product registrations, additional stock-based compensation of \$0.3 million and costs related to ERP system upgrades of \$0.5 million, partially offset by legal settlement expenses of \$0.6 million during the prior year period.

Sales and Marketing

Sales and marketing expenses consist primarily of sales commissions, personnel costs for sales and marketing employees, costs for trade shows, sales conventions and meetings, travel expenses, advertising, and other sales and marketing related costs. Sales and marketing expenses increased 11%, or \$0.6 million, to \$5.9 million for the three months ended September 30, 2022, compared to \$5.3 million for the same period of 2021. Sales and marketing expenses increased 6%, or \$1.0 million, to \$16.7 million for the nine months ended September 30, 2022, compared to \$15.7 million for the same period of 2021. The increase for the three-month comparison is primarily due to additional independent agent sales commissions and incentives of \$0.6 million due to higher revenues versus the comparable period in 2021. The increase for the nine-month comparison is primarily due to additional salaries and wages related to higher headcount and additional independent agent sales commissions and incentives of \$0.6 million due to higher revenues versus the comparable period in 2021.

Research and Development

Research and development expenses consist primarily of internal costs for the development of new technologies and processes. Research and development expenses decreased 13% or \$0.1 million, to \$0.2 million for the three months ended September 30, 2022, compared to \$0.3 million for the three months ended September 30, 2021. Research and development expenses of \$0.7 million for the nine months ended September 30, 2022 was comparable to the prior year period. The decrease for the three-month comparison is primarily due to reduced equipment purchases versus the comparable period in 2021.

Interest Expense

Interest expense consists of interest incurred from our debt instruments. Interest expense was \$0.4 million for the three months ended September 30, 2022 compared to \$0.3 million for the three months ended September 30, 2021. Interest expense was \$1.2 million for the nine months ended September 30, 2022 and \$0.5 million for the nine months ended September 30, 2021. The increase in interest expense during the three months ended September 30, 2022 compared to the comparable period in the prior year resulted primarily from increases to the base interest rate applied to our debt instruments. The increase in interest expense during the nine months ended September 30, 2022 compared to the comparable period in the prior year resulted from our debt refinancing in May 2021, prior to which no interest expense related to our debt instruments was incurred during 2021. We expect interest expense to increase in future periods compared to the comparable prior year periods in light of current rising interest rates. We expect that our annualized interest expense will increase approximately \$0.1 million for every 75 basis points of increase to the reference rate associated with our credit agreements.

Liquidity and Capital Resources

Working Capital

Since our inception, we have financed our operations through primarily operating cash flows, private placements of equity securities and convertible debt, debt facilities, common stock rights offerings, and other debt transactions. The following table summarizes our working capital as of September 30, 2022 and December 31, 2021 (in thousands):

	September 30, 2022	December 31, 2021
Cash and cash equivalents	\$ 17,603	\$ 18,387
Accounts receivable, net	9,839	7,154
Inventories	16,993	17,945
Total current assets	45,108	44,330
Accounts payable	3,779	2,615
Accrued liabilities	5,021	4,349
Line of credit	720	3,620
Current portion of long-term debt	1,335	—
Total current liabilities	11,359	11,077
Net working capital	33,749	33,253

Our decrease in cash and cash equivalents was due primarily to net cash used in operations and reduced borrowing on our revolving line of credit, partially offset by the net proceeds from the closing of the first tranche of our August 2022 private placement of common stock and warrants. On August 25, 2022, we issued in the first tranche of a private placement with several accredited investors approximately 14.1 million shares of our common stock at a purchase price of \$0.48 per share and warrants to purchase approximately 3.5 million shares of our common stock. The warrants have an exercise price of \$0.48 per share, subject to customary anti-dilution, but not price protection, adjustments, are immediately exercisable and expire on the five-year anniversary of the date of issuance. We received net cash proceeds of approximately \$6.3 million, after deducting fees and other estimated offering expenses, from the first tranche of this private placement. The closing of the second tranche of the private placement occurred on October 7, 2022, at which we sold an additional approximately 6.2 million shares of our common stock and warrants to purchase approximately 1.6 million shares of common stock for an aggregate purchase price of \$3.0. The warrants issued at the second closing are identical to the warrants issued at the first closing and also expire on the five-year anniversary of the first closing. We expect to use the net proceeds from this private placement for working capital and other general corporate purposes.

Cash Flows

Net cash used in operating activities for the first nine months of 2022 was \$3.1 million. For the comparable period of 2021, net cash provided by operating activities was \$16 thousand. This increase in net cash used in operating activities relates primarily to the increase in net loss, partially offset by the effects of changes in operating assets and liabilities.

Net cash used in investing activities for the first nine months of 2022 and 2021 was \$1.1 million and \$1.3 million, respectively, primarily representing purchases of property and equipment.

Net cash provided by financing activities was \$3.4 million for the first nine months of 2022, which was primarily attributable to \$6.3 million of proceeds from the first tranche of our August 2022 private placement, net of issuance costs, partially offset by net repayments on our line of credit. Net cash provided financing activities was \$17.6 million for the comparable period of 2021, which was primarily attributable to \$18.4 million of proceeds from our February 2021 private placement, net of issuance costs.

Current and Prior Credit Facilities

On May 6, 2021, the Company, as guarantor, and our subsidiaries, as borrowers (collectively, the “Borrowers”), entered into a Credit, Security and Guaranty Agreement (Term Loan) (the “Term Credit Agreement”) and Credit, Security and Guaranty Agreement (Revolving Loan) (the “Revolving Credit Agreement”) and, together with the Term Credit Agreement, the “Credit Agreements”) with MidCap Financial Trust, in its capacity as agent (“MidCap”).

The Term Credit Agreement provides for a secured term loan facility (the “Term Facility”) in an aggregate principal amount of \$12.0 million (the “Term Loan Commitment”), which was funded to the Borrowers immediately, and an additional \$5.0 million tranche available solely at the discretion of MidCap and the lenders, for the purposes agreed to between the Company, the Borrowers and the lenders in advance of the making of loans under such additional tranche. The Revolving Credit Agreement provides for a secured revolving credit facility (the “Revolving Facility,” and, together with the Term Facility, the “Facilities”) under which the Borrowers may borrow up to \$8.0 million (such amount, the “Revolving Loan Commitment”) at any one time, the availability of which is determined based on a borrowing base equal to percentages of certain accounts receivable and inventory of the Borrowers in accordance with a formula set forth in the Revolving Credit Agreement. All borrowings under the Revolving Facility are subject to the satisfaction of customary conditions, including the absence of default, the accuracy of representations and warranties in all material respects and the delivery of an updated borrowing base certificate.

The Facilities have a maturity date of May 1, 2026 (the “Maturity Date”). Beginning in June 2023, the Company is required to make monthly principal payments of approximately \$0.3 million on the Term Facility through the Maturity Date. Each of the Borrowers, and the Company, as guarantor, are jointly and severally liable for all of the obligations under the Facilities on the terms set forth in the Credit Agreements. The Borrowers’ obligations, and the Company’s obligations as a guarantor, under the Credit Agreements are secured by first-priority liens on substantially all of their assets, including, without limitation, all inventory, equipment, accounts, intellectual property and other assets of the Company and the Borrowers.

The proceeds of the Term Facility and Revolving Facility were used to pay transaction fees in connection with the Facilities and to pay in full all outstanding indebtedness and accrued interest under the Company’s prior credit facility, which is described below. As of September 30, 2022, the Company had \$0.7 million outstanding and \$7.3 million of availability under the Revolving Facility. On October 27, 2022, the Credit Agreements were amended to transition the reference rate from LIBOR to term SOFR. The term SOFR reference rate will apply to amounts outstanding and draws that take place on or after the November 1, 2022.

The loans and other obligations pursuant to the Credit Agreements bear interest at a per annum rate equal to the sum of the LIBOR rate, as such term is defined in the Credit Agreements, plus the applicable margin of 7.00% in the case of the Term Credit Agreement, and 4.50% in the case of the Revolving Credit Agreement, subject in each case to a LIBOR floor of 1.00%. As of September 30, 2022, the effective rate of the Term Facility, inclusive of amortization of debt issuance costs and accretion of the final payment, was 11.53%, and the effective rate of the Revolving Facility was 7.07%.

The Credit Agreements contain affirmative and negative covenants customarily applicable to senior secured credit facilities, including covenants that, among other things, limit or restrict the ability of the Borrowers, subject to negotiated exceptions, to incur additional indebtedness and additional liens on their assets, engage in mergers or acquisitions or dispose of assets, pay dividends or make other distributions, voluntarily prepay other indebtedness, enter into transactions with affiliated persons, make investments, and change the nature of their businesses. In addition, the Credit Agreements require the Borrowers and the Company to maintain net product revenue at or above minimum levels and to maintain a minimum adjusted EBITDA and a minimum liquidity, in each case at levels specified in the Credit Agreements. On March 7, 2022, the Credit Agreements were amended to, among other things, (i) provide for a waiver of compliance with respect to the Company's minimum adjusted EBITDA requirement if and so long as the Company's liquidity (as specifically defined in the Credit Agreements) is in excess of \$14 million and there is not otherwise an event of default under the Credit Agreements, commencing with the next delivery of the compliance certificate required under the Credit Agreements, and (ii) re-set the date certain fees payable in connection with optional prepayments are determined to the date the amendment was executed and consequently extend such fees' original expiration. In addition, the exit fees were increased by 25 basis points. As of September 30, 2022, we were in compliance with all covenants under the Credit Agreements.

On May 6, 2021, contemporaneously with the execution and delivery of the Credit Agreements, that certain Second Amended and Restated Credit Agreement, dated March 29, 2019, among the Company, the Borrowers, Royalty Opportunities and ROS, as subsequently amended, which was scheduled to mature on December 31, 2021, was terminated in accordance with the terms thereof and all outstanding amounts were repaid by the Borrowers to OrbiMed Royalty Opportunities II, LP in its role as sole lender thereunder.

Cash Requirements

We believe that our \$17.4 million of cash and cash equivalents as of September 30, 2022, together with the net proceeds from the closing of the second tranche of our private placement on October 7, 2022 and amounts available under the Facilities and cash provided by operating activities, will be sufficient to meet our anticipated cash requirements through at least November 2023. However, we may require or seek additional capital to fund our future operations and business strategy prior to November 2023. Accordingly, there is no assurance that we will not need or seek additional financing prior to such time.

We may elect to raise additional financing even before we need it if market conditions for raising additional capital are favorable. We may seek to raise additional financing through various sources, such as equity and debt financings, additional debt restructurings or refinancings, or through strategic collaborations and license agreements. We can give no assurances that we will be able to secure additional sources of funds to support our operations, or if such funds are available to us, that such additional financing will be sufficient to meet our needs or on terms acceptable to us. This is particularly true if economic and market conditions deteriorate.

To the extent that we raise additional capital through the sale of equity or convertible debt securities or the restructuring or refinancing of our debt, the interests of our current stockholders may be diluted, and the terms may include discounted equity purchase prices, warrant coverage, liquidation or other preferences or rights that would adversely affect the rights of our current stockholders. If we issue common stock, we may do so at purchase prices that represent a discount to our trading price and/or we may issue warrants to the purchasers, which could further dilute our current stockholders. If we issue preferred stock, it could adversely affect the rights of our stockholders or reduce the value of our common stock. In particular, specific rights or preferences granted to future holders of preferred stock may include voting rights, preferences as to dividends and liquidation, conversion and redemption rights, sinking fund provisions, and restrictions on our ability to merge with or sell our assets to a third party. Additional debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. Prior to raising additional equity or debt financing, we may be required to obtain the consent of the Agent under our Credit Agreements and/or ROS and Royalty Opportunities under our Investor Rights Agreement with them, and no assurance can be provided that they would provide such consent, which could limit our ability to raise additional financing and the terms thereof. In addition, the investors in our recent private placement have certain participation rights with respect to certain future equity offerings for capital raising purposes.

Management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make estimates and assumptions for the reported amounts of assets, liabilities, revenue, expenses, and related disclosures. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions, and any such differences may be material.

There have been no changes in our critical accounting estimates for the three and nine months ended September 30, 2022 as compared to the critical accounting estimates described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As a smaller reporting company, we are not required to provide the information required by this Item.

ITEM 4. CONTROLS AND PROCEDURES

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

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 defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended) as of September 30, 2022. Based upon that evaluation, our principal executive officer and principal financial officer concluded that as of September 30, 2022, our disclosure controls and procedures were effective.

Changes in Internal Control over Financial Reporting

During the three months ended September 30, 2022, the Company implemented a new enterprise resource planning system. There were no other changes in the Company's internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended) during the three months ended September 30, 2022, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Not applicable.

ITEM 1A. RISK FACTORS

As a smaller reporting company, we are not required to provide the information required by this Item.

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

We did not sell any unregistered equity securities of our Company during the quarter ended September 30, 2022, other than the issuance of shares of our common stock and warrants in connection with our private placement, as reported in a Current Report on Form 8-K as filed with the SEC on August 24, 2022.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

On October 27, 2022, the Company's term loan and revolving credit agreements with MidCap Financial Trust, as agent, were amended to transition the reference rate from LIBOR to term SOFR. The term SOFR reference rate will apply to amounts outstanding and draws that place on or after November 1, 2022.

The foregoing description of the amendments to the Company's term loan and revolving credit agreements does not purport to be complete and is qualified in its entirety by reference to the full text of the amendments, which are filed as Exhibits 10.4 and 10.5, respectively, to this Quarterly Report on Form 10-Q and incorporated herein by reference.

ITEM 6. EXHIBITS

The following exhibits are being filed or furnished with this Quarterly Report on Form 10-Q:

Exhibit No.	Description
3.1	<u>Amended and Restated Certificate of Incorporation of Xtant Medical Holdings, Inc. (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on February 13, 2018 (SEC File No. 001-34951) and incorporated by reference herein).</u>
3.2	<u>Certificate of Amendment of the Amended and Restated Certificate of Incorporation of Xtant Medical Holdings, Inc. (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on October 31, 2019 (SEC File No. 001-34951) and incorporated by reference herein).</u>
3.3	<u>Certificate of Amendment of the Amended and Restated Certificate of Incorporation of Xtant Medical Holdings, Inc., as amended (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on October 1, 2020 (SEC File No. 001-34951) and incorporated by reference herein).</u>
3.4	<u>Second Amended and Restated Bylaws of Xtant Medical Holdings, Inc. (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on February 16, 2018 (SEC File No. 001-34951) and incorporated by reference herein).</u>
4.1	<u>Form of Warrant Issued to Investors in August 2022 Private Placement (filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K as filed with the SEC on August 24, 2022 (SEC File No. 0001-34951) and incorporated by reference herein).</u>
10.1	<u>Securities Purchase Agreement, dated as of August 23, 2022, by and among Xtant Medical Holdings, Inc. and the investors party thereto (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K as filed with the SEC on August 24, 2022 (SEC File No. 0001-34951) and incorporated by reference herein).</u>
10.2	<u>Registration Rights Agreement by and among Xtant Medical Holdings, Inc. and the investors party thereto (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K as filed with the SEC on August 31, 2022 (SEC File No. 0001-34951) and incorporated by reference herein).</u>
10.3	<u>Letter Agreement by and between Xtant Medical Holdings, Inc. and Stavros Vizirgianakis (filed as Exhibit 10.3 to the Registrant's Current Report on Form 8-K as filed with the SEC on August 31, 2022 (SEC File No. 0001-34951) and incorporated by reference herein).</u>
10.4	<u>Amendment No. 2 to Credit, Security and Guaranty Agreement (Term Loan), dated as of October 27, 2022, by and among Xtant Medical, Inc., Bacterin International, Inc., X-spine Systems, Inc., and any additional borrower that hereafter becomes party thereto, Xtant Medical Holdings, Inc., and any additional guarantor that hereafter becomes party thereto, and MidCap Financial Trust, as agent, and the lenders from time to time party thereto (filed herewith).</u>
10.5	<u>Amendment No. 2 to Credit, Security and Guaranty Agreement (Revolving Loan), dated as of October 27, 2022, by and among Xtant Medical, Inc., Bacterin International, Inc., X-spine Systems, Inc., and any additional borrower that hereafter becomes party thereto, Xtant Medical Holdings, Inc., and any additional guarantor that hereafter becomes party thereto, and MidCap Financial Trust, as agent, and the lenders from time to time party thereto (filed herewith).</u>
31.1	<u>Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).</u>
31.2	<u>Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).</u>
32.1	<u>Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith).</u>
32.2	<u>Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith).</u>
101	The following materials from Xtant's Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2022, formatted in Inline

XBRL (Extensible Business Reporting Language): (i) the unaudited Condensed Consolidated Balance Sheets, (ii) the unaudited Condensed Consolidated Statements of Operations, (iii) the unaudited Condensed Consolidated Statements of Equity, (iv) the unaudited Condensed Consolidated Statements of Cash Flows, and (v) Notes to Condensed Consolidated Financial Statements (filed herewith).

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Cover Page Interactive Data File (embedded within the Inline XBRL document).

SIGNATURES

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

XTANT MEDICAL HOLDINGS, INC.

Date: November 3, 2022

By: /s/ Sean E. Browne
Name: Sean E. Browne
Title: President and Chief Executive Officer
(Principal Executive Officer)

Date: November 3, 2022

By: /s/ Scott Neils
Name: Scott Neils
Title: Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

AMENDMENT NO. 2 TO CREDIT, SECURITY AND GUARANTY AGREEMENT (TERM LOAN)

This AMENDMENT NO. 2 TO CREDIT, SECURITY AND GUARANTY AGREEMENT (TERM LOAN) (this “**Agreement**”) is made as of October 27, 2022, by and among XTANT MEDICAL HOLDINGS, INC., a Delaware corporation (“**Holdings**”) as a Guarantor, each of Holdings’ direct and indirect Subsidiaries set forth on the signature pages hereto as a “Borrower” (collectively, the “**Borrowers**” and each individually, a “**Borrower**”), MidCap Financial Trust, a Delaware statutory trust, as Agent (in such capacity, together with its successors and assigns, “**Agent**”) and the other financial institutions or other entities from time to time parties to the Credit Agreement referenced below, each as a Lender.

RECITALS

A. Agent, Lenders, and the Credit Parties have entered into that certain Credit, Security and Guaranty Agreement, dated as of May 6, 2021 (Term Loan) (as amended by that certain Amendment No. 1 to Credit, Security and Guaranty Agreement (Term Loan), dated as of March 7, 2022, the “**Existing Credit Agreement**” and as amended hereby and as it may be further amended, modified, supplemented and restated from time to time, the “**Credit Agreement**”), pursuant to which the Lenders have agreed to make certain advances of money and to extend certain financial accommodations to Borrowers in the amounts and manner set forth in the Credit Agreement.

B. The Credit Parties have requested, and Agent and all Lenders have agreed, to amend certain provisions of the Existing Credit Agreement, all in accordance with the terms and subject to the conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing, the terms and conditions set forth in this Agreement, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Agent, Lenders and the Credit Parties hereby agree as follows, which amendments to the Original Credit Agreement are effective as of the first day after the end of the Interest Period during which this Agreement becomes effective in accordance with Section 3 below:

1. **Recitals.** This Agreement shall constitute a Financing Document and the Recitals and each reference to the Credit Agreement, unless otherwise expressly noted, will be deemed to reference the Credit Agreement as amended hereby. The Recitals set forth above shall be construed as part of this Agreement as if set forth fully in the body of this Agreement and capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Credit Agreement (including those capitalized terms used in the Recitals hereto).

2. **Amendments to Existing Credit Agreement.** Subject to the terms and conditions of this Agreement, including, without limitation, the conditions to effectiveness set forth in Section 3 below, the Existing Credit Agreement is hereby amended as follows:

(a) Section 1.1 of the Existing Credit Agreement is hereby amended by adding the following definitions in alphabetical order:

“**Available Tenor**” means, as of any date of determination with respect to the then-current Benchmark, (a) if such Benchmark is a term rate, any tenor for such Benchmark (or component thereof) that is or may be used for determining the length of an interest period pursuant to this Agreement or (b) otherwise, any payment period for interest calculated with reference to such Benchmark (or component thereof) that is or may be used for determining any frequency of making payments of interest calculated with reference to such Benchmark, in each case, as of such date and not including, for the avoidance of doubt, any tenor for such Benchmark that is then-removed from the definition of “Interest Period” or similar term pursuant to Section 2.2(n).

“**Benchmark**” means, initially, Term SOFR; provided that if a Benchmark Transition Event and its related Benchmark Replacement Date have occurred with respect to Term SOFR or the then-current Benchmark, then “Benchmark” means the applicable Benchmark Replacement to the extent that such Benchmark Replacement has replaced such prior benchmark rate pursuant to Section 2.2(n).

“**Benchmark Replacement**” means, with respect to any Benchmark Transition Event, the sum of: (a) the alternate benchmark rate that has been selected by Agent in consultation with the Borrowers giving due consideration to (i) any selection or recommendation of a replacement benchmark rate or the mechanism for determining such a rate by the Relevant Governmental Body or (ii) any evolving or then-prevailing market convention for determining a benchmark rate as a replacement to the then-current Benchmark for Dollar-denominated syndicated credit facilities and (b) the related Benchmark Replacement Adjustment; provided that, if such Benchmark Replacement as so determined would be less than the Floor, such Benchmark Replacement will be deemed to be the Floor for the purposes of this Agreement and the other Financing Documents.

“**Benchmark Replacement Adjustment**” means, with respect to any replacement of the then-current Benchmark with an Unadjusted Benchmark Replacement for any applicable Available Tenor, the spread adjustment, or method for calculating or determining such spread adjustment (which may be a positive or negative value or zero) that has been selected by Agent in consultation with the Borrowers giving due consideration to any selection or recommendation by the Relevant Governmental Body, or any evolving or then-prevailing market convention at such time, for determining a spread adjustment, or method for calculating or determining such spread adjustment, for such type of replacement for U.S. dollar-denominated syndicated credit facilities.

“**Benchmark Replacement Date**” means the earlier to occur of the following events with respect to the then-current Benchmark: (a) in the case of clause (a) or (b) of the definition of “Benchmark Transition Event”, the later of (i) the date of the public statement or publication of information referenced therein and (ii) the date on which the administrator of such Benchmark (or the published component used in the calculation thereof) permanently or indefinitely ceases to provide all Available Tenors of such Benchmark (or such component thereof); or (b) in the case of clause (c) of the definition of “Benchmark Transition Event”, the first date on which such Benchmark (or the published component used in the calculation thereof) has been determined and announced by the regulatory supervisor for the administrator of such Benchmark (or such component thereof) to be no longer representative; provided, that such non-representativeness will be determined by reference to the most recent statement or publication referenced in such clause (c) even if any Available Tenor of such Benchmark (or such component thereof) continues to be provided on such date. For the avoidance of doubt, the “Benchmark Replacement Date” will be deemed to have occurred in the case of clause (a) or (b) with respect to any Benchmark upon the occurrence of the applicable event or events set forth therein with respect to all then-current Available Tenors of such Benchmark (or the published component used in the calculation thereof).

“**Benchmark Transition Event**” means the occurrence of one or more of the following events with respect to the then-current Benchmark: (a) a public statement or publication of information by or on behalf of the administrator of such Benchmark (or the published component used in the calculation thereof) announcing that such administrator has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof), permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof); (b) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof), the Federal Reserve Board, the Federal Reserve Bank of New York, an insolvency official or resolution authority with jurisdiction over the administrator for such Benchmark (or such component), or a court or an entity with similar insolvency or resolution authority, which states that the administrator of such Benchmark (or such component) has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof) permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof); or (c) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof) announcing that all Available Tenors of such Benchmark (or such component thereof) are no longer, or as of a specified future date will no longer be, representative. For the avoidance of doubt, a “Benchmark Transition Event” will be deemed to have occurred with respect to any Benchmark if a public statement or publication of information set forth above has occurred with respect to each then-current Available Tenor of such Benchmark (or the published component used in the calculation thereof).

“**Benchmark Transition Start Date**” means, in the case of a Benchmark Transition Event, the earlier of (a) the applicable Benchmark Replacement Date and (b) if such Benchmark Transition Event is a public statement or publication of information of a prospective event, the 90th day prior to the expected date of such event as of such public statement or publication of information (or if the expected date of such prospective event is fewer than 90 days after such statement or publication, the date of such statement or publication).

“**Benchmark Unavailability Period**” means the period (if any) (a) beginning at the time that a Benchmark Replacement Date pursuant to clauses (a) or (b) of that definition has occurred if, at such time, no Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Financing Document in accordance with Section 2.2(n) and (b) ending at the time that a Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Financing Document in accordance with Section 2.2(n).

“**Conforming Changes**” means, with respect to Term SOFR or any Benchmark Replacement, any technical, administrative or operational changes (including (a) changes to the definition of “Business Day”, “Reference Time” or other definitions, (b) the addition of concepts such as “interest period”, (c) changes to timing and/or frequency of determining rates, making interest payments, giving borrowing requests, prepayment, conversion or continuation notices, or length of lookback periods, (d) the applicability of Section 2.8 (*Taxes; Capital Adequacy; Increased Costs; Inability to Determine Rates; Illegality*) and (e) other technical, administrative or operational matters) that Agent decides may be appropriate to reflect the adoption and implementation of Term SOFR or such Benchmark Replacement and to permit the administration thereof by Agent in a manner substantially consistent with market practice (or, if Agent decides that adoption of any portion of such market practice is not administratively feasible or determines that no such market practice exists, in such other manner as Agent decides is reasonably necessary in connection with the administration of this Agreement and the other Financing Documents).

“**Floor**” means the rate per annum of interest equal to one percent (1.00%).

“**Reference Time**” means approximately a time substantially consistent with market practice two (2) SOFR Business Days prior to the first day of each calendar month. If by 5:00 pm (New York City time) on any interest lookback day, Term SOFR in respect of such interest lookback day has not been published on the SOFR Administrator’s Website, then Term SOFR for such interest lookback day will be Term SOFR as published in respect of the first preceding SOFR Business Day for which Term SOFR was published on the SOFR Administrator’s Website; provided that such first preceding SOFR Business Day is not more than three (3) SOFR Business Days prior to such interest lookback day.

“**Relevant Governmental Body**” means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York or any successor thereto.

“**Second Amendment**” means that certain Amendment No. 2 to Credit, Security and Guaranty Agreement (Term Loan), dated as of October 27, 2022, by and among the Borrowers, Agent and the Lenders party thereto.

“**SOFR**” means, with respect to any SOFR Business Day, a rate per annum equal to the secured overnight financing rate for such SOFR Business Day.

“**SOFR Administrator**” means CME Group Benchmark Administration Limited (CBA) (or a successor administrator of Term SOFR selected by Agent in its reasonable discretion).

“**SOFR Administrator’s Website**” means the website of the SOFR Administrator, currently at <https://www.cmegroup.com/market-data/cme-group-benchmark-administration/term-sofr.html>, or any successor source for Term SOFR identified by the SOFR Administrator from time to time.

“**SOFR Business Day**” means any day other than a Saturday or Sunday or a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in United States government securities.

“**SOFR Implementation Date**” means the first day after the end of the Interest Period during which the Second Amendment shall become effective in accordance with its terms.

“**SOFR Interest Rate**” means, with respect to each day during which interest accrues on a Loan, the rate per annum (expressed as a percentage) equal to (a) Term SOFR for the applicable Interest Period for such day; or (b) if the then-current Benchmark has been replaced with a Benchmark Replacement pursuant to Section 2.2(n), such Benchmark Replacement for such day. Notwithstanding the foregoing, the SOFR Interest Rate shall not at any time be less the Floor.

“**SOFR Loan**” means a Loan that bears interest at a rate based on Term SOFR.

“**Term SOFR**” means the greater of (a) the forward-looking term rate for a period comparable to such Interest Period based on SOFR that is published by the SOFR Administrator and is displayed on the SOFR Administrator’s Website at approximately the Reference Time for such Interest Period plus 0.11448% and (b) the Floor. Unless otherwise specified in any amendment to this Agreement entered into in accordance with Section 2.2(n), in the event that a Benchmark Replacement with respect to Term SOFR is implemented, then all references herein to Term SOFR shall be deemed references to such Benchmark Replacement.

“**Unadjusted Benchmark Replacement**” means the applicable Benchmark Replacement excluding the related Benchmark Replacement Adjustment.”

(b) Section 1.1 of the Existing Credit Agreement is hereby amended by deleting the definition of “Business Day” where it appears therein and replacing it with the following:

“**Business Day**” means any day except a Saturday, Sunday or other day on which either the New York Stock Exchange is closed, or on which commercial banks in Washington, DC and New York City are authorized by law to close; provided, however, that when used in the context of a SOFR Loan, the term “Business Day” shall also exclude any day that is not also a SOFR Business Day.

(c) Section 1.1 of the Existing Credit Agreement is hereby amended by deleting the definitions of “Base LIBOR Rate” and “LIBOR Rate” in their entirety.

(d) The Existing Credit Agreement is hereby amended by deleting Section 2.1(a)(iv) in its entirety.

(e) Section 2.2(a) of the Existing Credit Agreement is hereby amended by deleting such subsection in its entirety and replacing it with the following:

“(a) Interest.

(i) From and following the SOFR Implementation Date, except as expressly set forth in this Agreement, Loans and the other Obligations shall bear interest at the sum of the SOFR Interest Rate plus the Applicable Margin. Interest on the Loans shall be paid in arrears on the first (1st) day of each month and on the maturity of such Loans, whether by acceleration or otherwise. Interest on all other Obligations shall be payable upon demand.

(ii) In the event one or more of the following events occurs with respect to Term SOFR: (a) a public statement or publication of information by or on behalf of the SOFR Administrator announcing that the SOFR Administrator has ceased or will cease to provide Term SOFR for a 1-month period, permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide Term SOFR for a 1-month period; (b) a public statement or publication of information by the regulatory supervisor for the SOFR Administrator, the Federal Reserve Board, the Federal Reserve Bank of New York, an insolvency official or resolution authority with jurisdiction over the SOFR Administrator, or a court or an entity with similar insolvency or resolution authority, which states that the SOFR Administrator has ceased or will cease to provide Term SOFR for a 1-month period permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide Term SOFR for a 1-month period; or (c) a public statement or publication of information by the regulatory supervisor for the SOFR Administrator announcing that Term SOFR for a 1-month period is no longer, or as of a specified future date will no longer be, representative and Agent has provided Borrower Representative with notice of the same, any outstanding affected SOFR Loans will be deemed to have been converted to Base Rate Loan at the end of the applicable Interest Period.

(iii) In connection with Term SOFR, Agent will have the right to make Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Financing Document, any amendments implementing such Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Financing Document. Agent will promptly notify Borrower Representative and the Lenders of the effectiveness of any Conforming Changes.”

(f) A new subsection (n) is hereby added to Section 2.2 of the Credit Agreement to read as follows:

“(n) Benchmark Replacement Setting; Conforming Changes.

(i) Upon the occurrence of a Benchmark Transition Event, Agent and Borrowers may amend this Agreement to replace the then-current Benchmark with a Benchmark Replacement. Any such amendment will become effective at 5:00 p.m. (New York City time) on the fifth (5th) Business Day after Agent has posted such proposed amendment to all Lenders and Borrowers so long as Agent has not received, by such time, written notice of objection thereto from Lenders comprising the Required Lenders. No such replacement will occur prior to the applicable Benchmark Transition Start Date. In connection with the implementation of a Benchmark Replacement, Agent will have the right in consultation with the Borrowers to make Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Financing Document, any amendments implementing such Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Financing Document. Agent will promptly notify Borrower Representative and the Lenders of the implementation of any Benchmark Replacement and the effectiveness of any Conforming Changes.

(ii) Any determination, decision or election that may be made by Agent or, if applicable, any Lender (or group of Lenders) pursuant to this Section will be conclusive and binding absent manifest error and may be made in its or their sole discretion and without consent from any other party to this Agreement or any other Financing Document, except, in each case, as expressly required pursuant to this Section. Notwithstanding anything to the contrary herein or in any other Financing Document, at any time, (a) if the then-current Benchmark is a term rate (including Term SOFR) and either (i) any tenor for such Benchmark is not displayed on a screen or other information service that publishes such rate from time to time as selected by Agent in its reasonable discretion or (ii) the regulatory supervisor for the administrator of such Benchmark has provided a public statement or publication of information announcing that any tenor for such Benchmark is or will be no longer representative, then Agent may modify the definition of “Interest Period” (or any similar or analogous definition) for any Benchmark settings at or after such time to remove such unavailable or non-representative tenor, and (b) if a tenor that was removed pursuant to clause (a) above either (i) is subsequently displayed on a screen or information service for a Benchmark or (ii) is not, or is no longer, subject to an announcement that it is or will no longer be representative for a Benchmark, then Agent may modify the definition of “Interest Period” (or any similar or analogous definition) for all Benchmark settings at or after such time to reinstate such previously removed tenor. Agent will promptly notify Borrower Representative of the removal or reinstatement of any tenor of a Benchmark pursuant to this Section.

(iii) Upon Borrower Representative’s receipt of notice of the commencement of a Benchmark Unavailability Period, any outstanding affected Loans will be deemed to have been converted into Base Rate Loans at the end of the applicable Interest Period.”

(g) Section 2.8 of the Existing Credit Agreement is hereby amended by:

(i) deleting the name of such Section in its entirety and restating it as follows:

“Section 2.8 Taxes; Capital Adequacy; Increased Costs; Inability to Determine Rates; Illegality.”

(ii) deleting subsection (g) thereof in its entirety;

(iii) renumbering the existing clause (h) as new clause (g) therein;

(iv) adding the following new clause (h) in the appropriate alphabetical ordering therein;

“(h) If any Lender shall reasonably determine that the adoption or taking effect of, or any change in, any applicable Law shall (i) impose, modify or deem applicable any reserve, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or credit extended or participated in by, any Lender, (ii) subject any Lender to any tax of any kind whatsoever with respect to this Agreement, or any SOFR Loan made by it, or change the basis of taxation of payments to such Lender in respect thereof (except for Taxes covered by Section 2.8); or (iii) impose on any Lender any other condition, cost or expense affecting this Agreement or SOFR Loans made by such Lender, and the result of any of the foregoing shall be to increase the cost to such Lender of making or maintaining any Loan the interest on which is determined by reference to Term SOFR (or of maintaining its obligation to make any such Loan), or to reduce the amount of any sum received or receivable by such Lender (whether of principal, interest or any other amount) then, upon request of such Lender, the Borrowers will pay to such Lender such additional amount or amounts as will compensate such Lender for such additional costs incurred or reduction suffered.”

(v) in subsection (i) thereof, deleting the reference to “either Section 2.1(a)(iv) or Section 2.8(h)” in its entirety and replacing it with “the clauses in this Section 2.8”; and

(vi) adding the following new clauses (j), (k) and (l) in the appropriate alphabetical order therein:

“(j) Subject to Section 2.2(n), if Agent determines (which determination shall be conclusive and binding absent manifest error) that Term SOFR cannot be determined pursuant to the definition thereof on or prior to the first day of any Interest Period, Agent will promptly so notify the Borrowers and each Lender. Upon notice thereof by Agent to Borrowers, any obligation of the Lenders to make SOFR Loans shall be suspended until Agent revokes such notice. Upon receipt of such notice, any outstanding affected SOFR Loans will be deemed to have been converted into Base Rate Loans at the end of the applicable Interest Period. Upon any such conversion, Borrowers shall also pay any additional amounts required pursuant to this Agreement.

(k) If any Lender determines that any Law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for any Lender or its applicable lending office to make, maintain or fund SOFR Loans, or to determine or charge interest rates based upon Term SOFR, then, upon notice thereof by such Lender to Borrowers (through Agent), any obligation of such Lender to make SOFR Loans shall be suspended, in each case until such Lender notifies Agent and Borrowers that the circumstances giving rise to such determination no longer exist. Upon receipt of such notice, all SOFR Loans shall become Base Rate Loans. Upon any such conversion, Borrowers shall also pay any additional amounts required pursuant to this Agreement.

(l) Each party’s obligations under this Section 2.8 shall survive the resignation or replacement of Agent or any assignment of rights by, or the replacement of, a Lender, and the repayment, satisfaction or discharge of all Obligations hereunder.”

3. **Conditions to Effectiveness.** This Agreement shall become effective as of the date (the “**Effective Date**”) on which each of the following conditions have been satisfied, as determined by Agent in its sole discretion; *provided* that the amendments set forth in Section 2 hereof shall not become effective until the first day of the next Interest Period after the Effective Date, at which point such amendments shall automatically become effective without any further action by any party:

(a) Each Credit Party shall have delivered to Agent this Agreement executed by an authorized officer of such Credit Party; and

(b) Agent shall have received a duly executed copy of the Amendment No. 2 to Credit, Security and Guaranty Agreement (Revolving Loan), dated as of the date hereof.

4. **No Waiver or Novation.** The execution, delivery and effectiveness of this Agreement shall not, except as expressly provided in this Agreement, operate as a waiver of any right, power or remedy of Agent, nor constitute a waiver of any provision of the Credit Agreement, the Financing Documents or any other documents, instruments and agreements executed or delivered in connection with any of the foregoing. Nothing herein is intended or shall be construed as a waiver of any existing Defaults or Events of Default under the Credit Agreement or the other Financing Documents or any of Agent's rights and remedies in respect of such Defaults or Events of Default. This Agreement (together with any other document executed in connection herewith) is not intended to be, nor shall it be construed as, a novation of the Credit Agreement.

5. **Miscellaneous.**

(a) **Reference to the Effect on the Credit Agreement.** Upon the effectiveness of this Agreement, each reference in the Credit Agreement to "this Agreement," "hereunder," "hereof," "herein," or words of similar import shall mean and be a reference to the Credit Agreement, as amended by this Agreement. Except as specifically amended above, the Credit Agreement, and all other Financing Documents (and all covenants, terms, conditions and agreements therein), shall remain in full force and effect, and are hereby ratified and confirmed in all respects by each Credit Party.

(b) **Governing Law.** THIS AGREEMENT AND ALL DISPUTES AND OTHER MATTERS RELATING HERETO OR ARISING THEREFROM (WHETHER SOUNDING IN CONTRACT LAW, TORT LAW OR OTHERWISE), SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO CONFLICTS OF LAWS PRINCIPLES (OTHER THAN SECTION 5-1401 OF THE GENERAL OBLIGATIONS LAW).

(c) **Incorporation of Credit Agreement Provisions.** The provisions contained in Section 11.6 (Indemnification), Section 13.8(b) (Submission to Jurisdiction) and Section 13.9 (Waiver of Jury Trial) of the Credit Agreement are incorporated herein by reference to the same extent as if reproduced herein in their entirety.

(d) **Headings.** Section headings in this Agreement are included for convenience of reference only and shall not constitute a part of this Agreement for any other purpose.

(e) **Counterparts.** This Agreement may be signed in any number of counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same instrument. Signatures by facsimile or by electronic mail delivery of an electronic version of any executed signature page shall bind the parties hereto.

(f) **Entire Agreement.** This Agreement constitutes the entire agreement and understanding among the parties hereto and supersedes any and all prior agreements and understandings, oral or written, relating to the subject matter hereof.

(g) **Severability.** In case any provision of or obligation under this Agreement shall be invalid, illegal or unenforceable in any applicable jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

(h) **Successors/Assigns.** This Agreement shall bind, and the rights hereunder shall inure to, the respective successors and assigns of the parties hereto, subject to the provisions of the Credit Agreement and the other Financing Documents.

[SIGNATURES APPEAR ON FOLLOWING PAGES]

IN WITNESS WHEREOF, intending to be legally bound, and intending that this document constitute an agreement executed under seal, the undersigned have executed this Agreement under seal as of the day and year first hereinabove set forth.

AGENT:

MIDCAP FINANCIAL TRUST,
as Agent

By: Apollo Capital Management, L.P.,
its investment manager

By: Apollo Capital Management GP, LLC,
its general partner

By: /s/ Maurice Ansellem

Name: Maurice Ansellem

Title: Authorized Signatory

[Signatures Continue on Following Page]

LENDERS:

ELM 2020-3 TRUST

By: MidCap Financial Services Capital Management, LLC, as Servicer

By: /s/ John O'Dea

Name: John O'Dea

Title: Authorized Signatory

ELM 2020-4 TRUST

By: MidCap Financial Services Capital Management, LLC, as Servicer

By: /s/ John O'Dea

Name: John O'Dea

Title: Authorized Signatory

[Signatures Continue on Following Page]

BORROWERS:

XTANT MEDICAL, INC.

By: /s/ Sean E. Browne

Name Sean E. Browne

Title: Chief Executive Officer

BACTERIN INTERNATIONAL, INC.

By: /s/ Sean E. Browne

Name Sean E. Browne

Title: Chief Executive Officer

X-SPINE SYSTEMS, INC.

By: /s/ Sean E. Browne

Name Sean E. Browne

Title: Chief Executive Officer

GUARANTOR:

XTANT MEDICAL HOLDINGS, LLC

By: /s/ Sean E. Browne

Name Sean E. Browne

Title: President and Chief Executive Officer

AMENDMENT NO. 2 TO CREDIT, SECURITY AND GUARANTY AGREEMENT (REVOLVING LOAN)

This AMENDMENT NO. 2 TO CREDIT, SECURITY AND GUARANTY AGREEMENT (REVOLVING LOAN) (this “**Agreement**”) is made as of October 27, 2022, by and among XTANT MEDICAL HOLDINGS, INC., a Delaware corporation (“**Holdings**”) as a Guarantor, each of Holdings’ direct and indirect Subsidiaries set forth on the signature pages hereto as a “Borrower” (collectively, the “**Borrowers**” and each individually, a “**Borrower**”), MidCap Funding IV Trust, a Delaware statutory trust, individually as a Lender and as Agent (in such capacity, together with its successors and assigns, “**Agent**”) and the other financial institutions or other entities from time to time parties to the Credit Agreement referenced below, each as a Lender.

RECITALS

A. Agent, Lenders, and the Credit Parties have entered into that certain Credit, Security and Guaranty Agreement, dated as of May 6, 2021 (Revolving Loan) (as amended by that certain Amendment No. 1 to Credit, Security and Guaranty Agreement (Revolving Loan), dated as of March 7, 2022, the “**Existing Credit Agreement**” and as amended hereby and as it may be further amended, modified, supplemented and restated from time to time, the “**Credit Agreement**”), pursuant to which the Lenders have agreed to make certain advances of money and to extend certain financial accommodations to Borrowers in the amounts and manner set forth in the Credit Agreement.

B. The Credit Parties have requested, and Agent and all Lenders have agreed, to amend certain provisions of the Existing Credit Agreement, all in accordance with the terms and subject to the conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing, the terms and conditions set forth in this Agreement, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Agent, Lenders and the Credit Parties hereby agree as follows:

1. **Recitals.** This Agreement shall constitute a Financing Document and the Recitals and each reference to the Credit Agreement, unless otherwise expressly noted, will be deemed to reference the Credit Agreement as amended hereby. The Recitals set forth above shall be construed as part of this Agreement as if set forth fully in the body of this Agreement and capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Credit Agreement (including those capitalized terms used in the Recitals hereto).

2. **Amendments to Existing Credit Agreement.** Subject to the terms and conditions of this Agreement, including, without limitation, the conditions to effectiveness set forth in Section 3 below, the Existing Credit Agreement is hereby amended as follows, which amendments to the Original Credit Agreement are effective as of the first day after the end of the Interest Period during which this Agreement becomes effective in accordance with Section 3 below:

(a) Section 1.1 of the Existing Credit Agreement is hereby amended by adding the following definitions in alphabetical order:

“**Available Tenor**” means, as of any date of determination with respect to the then-current Benchmark, (a) if such Benchmark is a term rate, any tenor for such Benchmark (or component thereof) that is or may be used for determining the length of an interest period pursuant to this Agreement or (b) otherwise, any payment period for interest calculated with reference to such Benchmark (or component thereof) that is or may be used for determining any frequency of making payments of interest calculated with reference to such Benchmark, in each case, as of such date and not including, for the avoidance of doubt, any tenor for such Benchmark that is then-removed from the definition of “Interest Period” or similar term pursuant to Section 2.2(n).

“**Benchmark**” means, initially, Term SOFR; provided that if a Benchmark Transition Event and its related Benchmark Replacement Date have occurred with respect to Term SOFR or the then-current Benchmark, then “Benchmark” means the applicable Benchmark Replacement to the extent that such Benchmark Replacement has replaced such prior benchmark rate pursuant to Section 2.2(n).

“**Benchmark Replacement**” means, with respect to any Benchmark Transition Event, the sum of: (a) the alternate benchmark rate that has been selected by Agent in consultation with the Borrowers giving due consideration to (i) any selection or recommendation of a replacement benchmark rate or the mechanism for determining such a rate by the Relevant Governmental Body or (ii) any evolving or then-prevailing market convention for determining a benchmark rate as a replacement to the then-current Benchmark for Dollar-denominated syndicated credit facilities and (b) the related Benchmark Replacement Adjustment; provided that, if such Benchmark Replacement as so determined would be less than the Floor, such Benchmark Replacement will be deemed to be the Floor for the purposes of this Agreement and the other Financing Documents.

“**Benchmark Replacement Adjustment**” means, with respect to any replacement of the then-current Benchmark with an Unadjusted Benchmark Replacement for any applicable Available Tenor, the spread adjustment, or method for calculating or determining such spread adjustment (which may be a positive or negative value or zero) that has been selected by Agent in consultation with the Borrowers giving due consideration to any selection or recommendation by the Relevant Governmental Body, or any evolving or then-prevailing market convention at such time, for determining a spread adjustment, or method for calculating or determining such spread adjustment, for such type of replacement for U.S. dollar-denominated syndicated credit facilities.

“**Benchmark Replacement Date**” means the earlier to occur of the following events with respect to the then-current Benchmark: (a) in the case of clause (a) or (b) of the definition of “Benchmark Transition Event”, the later of (i) the date of the public statement or publication of information referenced therein and (ii) the date on which the administrator of such Benchmark (or the published component used in the calculation thereof) permanently or indefinitely ceases to provide all Available Tenors of such Benchmark (or such component thereof); or (b) in the case of clause (c) of the definition of “Benchmark Transition Event”, the first date on which such Benchmark (or the published component used in the calculation thereof) has been determined and announced by the regulatory supervisor for the administrator of such Benchmark (or such component thereof) to be no longer representative; provided, that such non-representativeness will be determined by reference to the most recent statement or publication referenced in such clause (c) even if any Available Tenor of such Benchmark (or such component thereof) continues to be provided on such date. For the avoidance of doubt, the “Benchmark Replacement Date” will be deemed to have occurred in the case of clause (a) or (b) with respect to any Benchmark upon the occurrence of the applicable event or events set forth therein with respect to all then-current Available Tenors of such Benchmark (or the published component used in the calculation thereof).

“Benchmark Transition Event” means the occurrence of one or more of the following events with respect to the then-current Benchmark: (a) a public statement or publication of information by or on behalf of the administrator of such Benchmark (or the published component used in the calculation thereof) announcing that such administrator has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof), permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof); (b) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof), the Federal Reserve Board, the Federal Reserve Bank of New York, an insolvency official or resolution authority with jurisdiction over the administrator for such Benchmark (or such component), or a court or an entity with similar insolvency or resolution authority, which states that the administrator of such Benchmark (or such component) has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof) permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof); or (c) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof) announcing that all Available Tenors of such Benchmark (or such component thereof) are no longer, or as of a specified future date will no longer be, representative. For the avoidance of doubt, a “Benchmark Transition Event” will be deemed to have occurred with respect to any Benchmark if a public statement or publication of information set forth above has occurred with respect to each then-current Available Tenor of such Benchmark (or the published component used in the calculation thereof).

“Benchmark Transition Start Date” means, in the case of a Benchmark Transition Event, the earlier of (a) the applicable Benchmark Replacement Date and (b) if such Benchmark Transition Event is a public statement or publication of information of a prospective event, the 90th day prior to the expected date of such event as of such public statement or publication of information (or if the expected date of such prospective event is fewer than 90 days after such statement or publication, the date of such statement or publication).

“Benchmark Unavailability Period” means the period (if any) (a) beginning at the time that a Benchmark Replacement Date pursuant to clauses (a) or (b) of that definition has occurred if, at such time, no Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Financing Document in accordance with Section 2.2(n) and (b) ending at the time that a Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Financing Document in accordance with Section 2.2(n).

“**Conforming Changes**” means, with respect to Term SOFR or any Benchmark Replacement, any technical, administrative or operational changes (including (a) changes to the definition of “Business Day”, “Reference Time” or other definitions, (b) the addition of concepts such as “interest period”, (c) changes to timing and/or frequency of determining rates, making interest payments, giving borrowing requests, prepayment, conversion or continuation notices, or length of lookback periods, (d) the applicability of Section 2.8 (*Taxes; Capital Adequacy; Increased Costs; Inability to Determine Rates; Illegality*) and (e) other technical, administrative or operational matters) that Agent decides may be appropriate to reflect the adoption and implementation of Term SOFR or such Benchmark Replacement and to permit the administration thereof by Agent in a manner substantially consistent with market practice (or, if Agent decides that adoption of any portion of such market practice is not administratively feasible or determines that no such market practice exists, in such other manner as Agent decides is reasonably necessary in connection with the administration of this Agreement and the other Financing Documents).

“**Floor**” means the rate per annum of interest equal to one percent (1.00%).

“**Reference Time**” means approximately a time substantially consistent with market practice two (2) SOFR Business Days prior to the first day of each calendar month. If by 5:00 pm (New York City time) on any interest lookback day, Term SOFR in respect of such interest lookback day has not been published on the SOFR Administrator’s Website, then Term SOFR for such interest lookback day will be Term SOFR as published in respect of the first preceding SOFR Business Day for which Term SOFR was published on the SOFR Administrator’s Website; provided that such first preceding SOFR Business Day is not more than three (3) SOFR Business Days prior to such interest lookback day.

“**Relevant Governmental Body**” means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York or any successor thereto.

“**Second Amendment**” means that certain Amendment No. 2 to Credit, Security and Guaranty Agreement (Revolving Loan), dated as of October 27, 2022, by and among the Borrowers, Agent and the Lenders party thereto.

“**SOFR**” means, with respect to any SOFR Business Day, a rate per annum equal to the secured overnight financing rate for such SOFR Business Day.

“**SOFR Administrator**” means CME Group Benchmark Administration Limited (CBA) (or a successor administrator of Term SOFR selected by Agent in its reasonable discretion).

“**SOFR Administrator’s Website**” means the website of the SOFR Administrator, currently at <https://www.cmegroup.com/market-data/cme-group-benchmark-administration/term-sofr.html>, or any successor source for Term SOFR identified by the SOFR Administrator from time to time.

“**SOFR Business Day**” means any day other than a Saturday or Sunday or a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in United States government securities.

“**SOFR Implementation Date**” means the first day after the end of the Interest Period during which the Second Amendment shall become effective in accordance with its terms.

“**SOFR Interest Rate**” means, with respect to each day during which interest accrues on a Loan, the rate per annum (expressed as a percentage) equal to (a) Term SOFR for the applicable Interest Period for such day; or (b) if the then-current Benchmark has been replaced with a Benchmark Replacement pursuant to Section 2.2(n), such Benchmark Replacement for such day. Notwithstanding the foregoing, the SOFR Interest Rate shall not at any time be less the Floor.

“**SOFR Loan**” means a Loan that bears interest at a rate based on Term SOFR.

“**Term SOFR**” means the greater of (a) the forward-looking term rate for a period comparable to such Interest Period based on SOFR that is published by the SOFR Administrator and is displayed on the SOFR Administrator’s Website at approximately the Reference Time for such Interest Period plus 0.11448% and (b) the Floor. Unless otherwise specified in any amendment to this Agreement entered into in accordance with Section 2.2(n), in the event that a Benchmark Replacement with respect to Term SOFR is implemented, then all references herein to Term SOFR shall be deemed references to such Benchmark Replacement.

“**Unadjusted Benchmark Replacement**” means the applicable Benchmark Replacement excluding the related Benchmark Replacement Adjustment.”

(b) Section 1.1 of the Existing Credit Agreement is hereby amended by deleting the definition of “Business Day” where it appears therein and replacing it with the following:

“**Business Day**” means any day except a Saturday, Sunday or other day on which either the New York Stock Exchange is closed, or on which commercial banks in Washington, DC and New York City are authorized by law to close; provided, however, that when used in the context of a SOFR Loan, the term “Business Day” shall also exclude any day that is not also a SOFR Business Day.

(c) Section 1.1 of the Existing Credit Agreement is hereby amended by deleting the definitions of “Base LIBOR Rate” and “LIBOR Rate” in their entirety.

(d) The Existing Credit Agreement is hereby amended by deleting Section 2.1(b)(iv) in its entirety and renumbering the existing clause (v) as clause (iv) thereof.

(e) Section 2.2(a) of the Existing Credit Agreement is hereby amended by deleting such subsection in its entirety and replacing it with the following:

“(a) Interest.

(i) From and following the SOFR Implementation Date, except as expressly set forth in this Agreement, Loans and the other Obligations shall bear interest at the sum of the SOFR Interest Rate plus the Applicable Margin. Interest on the Loans shall be paid in arrears on the first (1st) day of each month and on the maturity of such Loans, whether by acceleration or otherwise. Interest on all other Obligations shall be payable upon demand. For purposes of calculating interest, all funds transferred to the Payment Account for application to any Revolving Loans shall be subject to a five (5) Business Day clearance period and all interest accruing on such funds during such clearance period shall accrue for the benefit of Agent, and not for the benefit of the Lenders.

(ii) In the event one or more of the following events occurs with respect to Term SOFR: (a) a public statement or publication of information by or on behalf of the SOFR Administrator announcing that the SOFR Administrator has ceased or will cease to provide Term SOFR for a 1-month period, permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide Term SOFR for a 1-month period; (b) a public statement or publication of information by the regulatory supervisor for the SOFR Administrator, the Federal Reserve Board, the Federal Reserve Bank of New York, an insolvency official or resolution authority with jurisdiction over the SOFR Administrator, or a court or an entity with similar insolvency or resolution authority, which states that the SOFR Administrator has ceased or will cease to provide Term SOFR for a 1-month period permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide Term SOFR for a 1-month period; or (c) a public statement or publication of information by the regulatory supervisor for the SOFR Administrator announcing that Term SOFR for a 1-month period is no longer, or as of a specified future date will no longer be, representative and Agent has provided Borrower Representative with notice of the same, any outstanding affected SOFR Loans will be deemed to have been converted to Base Rate Loan at the end of the applicable Interest Period.

(iii) In connection with Term SOFR, Agent will have the right to make Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Financing Document, any amendments implementing such Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Financing Document. Agent will promptly notify Borrower Representative and the Lenders of the effectiveness of any Conforming Changes.”

(f) A new subsection (n) is hereby added to Section 2.2 of the Credit Agreement to read as follows:

“(n) Benchmark Replacement Setting; Conforming Changes.

(i) Upon the occurrence of a Benchmark Transition Event, Agent and Borrowers may amend this Agreement to replace the then-current Benchmark with a Benchmark Replacement. Any such amendment will become effective at 5:00 p.m. (New York City time) on the fifth (5th) Business Day after Agent has posted such proposed amendment to all Lenders and Borrowers so long as Agent has not received, by such time, written notice of objection thereto from Lenders comprising the Required Lenders. No such replacement will occur prior to the applicable Benchmark Transition Start Date. In connection with the implementation of a Benchmark Replacement, Agent will have the right in consultation with the Borrowers to make Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Financing Document, any amendments implementing such Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Financing Document. Agent will promptly notify Borrower Representative and the Lenders of the implementation of any Benchmark Replacement and the effectiveness of any Conforming Changes.

(ii) Any determination, decision or election that may be made by Agent or, if applicable, any Lender (or group of Lenders) pursuant to this Section will be conclusive and binding absent manifest error and may be made in its or their sole discretion and without consent from any other party to this Agreement or any other Financing Document, except, in each case, as expressly required pursuant to this Section. Notwithstanding anything to the contrary herein or in any other Financing Document, at any time, (a) if the then-current Benchmark is a term rate (including Term SOFR) and either (i) any tenor for such Benchmark is not displayed on a screen or other information service that publishes such rate from time to time as selected by Agent in its reasonable discretion or (ii) the regulatory supervisor for the administrator of such Benchmark has provided a public statement or publication of information announcing that any tenor for such Benchmark is or will be no longer representative, then Agent may modify the definition of “Interest Period” (or any similar or analogous definition) for any Benchmark settings at or after such time to remove such unavailable or non-representative tenor, and (b) if a tenor that was removed pursuant to clause (a) above either (i) is subsequently displayed on a screen or information service for a Benchmark or (ii) is not, or is no longer, subject to an announcement that it is or will no longer be representative for a Benchmark, then Agent may modify the definition of “Interest Period” (or any similar or analogous definition) for all Benchmark settings at or after such time to reinstate such previously removed tenor. Agent will promptly notify Borrower Representative of the removal or reinstatement of any tenor of a Benchmark pursuant to this Section.

(iii) Upon Borrower Representative’s receipt of notice of the commencement of a Benchmark Unavailability Period, any outstanding affected Loans will be deemed to have been converted into Base Rate Loans at the end of the applicable Interest Period.”

(g) Section 2.8 of the Existing Credit Agreement is hereby amended by:

(i) deleting the name of such Section in its entirety and restating it as follows:

“Section 2.8 Taxes; Capital Adequacy; Increased Costs; Inability to Determine Rates; Illegality.”

(ii) deleting subsection (g) thereof in its entirety;

(iii) renumbering the existing clause (h) as new clause (g) therein;

(iv) adding the following new clause (h) in the appropriate alphabetical ordering therein;

“(h) If any Lender shall reasonably determine that the adoption or taking effect of, or any change in, any applicable Law shall (i) impose, modify or deem applicable any reserve, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or credit extended or participated in by, any Lender, (ii) subject any Lender to any tax of any kind whatsoever with respect to this Agreement, or any SOFR Loan made by it, or change the basis of taxation of payments to such Lender in respect thereof (except for Taxes covered by Section 2.8); or (iii) impose on any Lender any other condition, cost or expense affecting this Agreement or SOFR Loans made by such Lender, and the result of any of the foregoing shall be to increase the cost to such Lender of making or maintaining any Loan the interest on which is determined by reference to Term SOFR (or of maintaining its obligation to make any such Loan), or to reduce the amount of any sum received or receivable by such Lender (whether of principal, interest or any other amount) then, upon request of such Lender, the Borrowers will pay to such Lender such additional amount or amounts as will compensate such Lender for such additional costs incurred or reduction suffered.”

(v) in subsection (i) thereof, deleting the reference to “either Section 2.1(b)(iv) or Section 2.8(h)” in its entirety and replacing it with “the clauses in this Section 2.8”; and

(vi) adding the following new clauses (j), (k) and (l) in the appropriate alphabetical order therein:

“(j) Subject to Section 2.2(n), if Agent determines (which determination shall be conclusive and binding absent manifest error) that Term SOFR cannot be determined pursuant to the definition thereof on or prior to the first day of any Interest Period, Agent will promptly so notify the Borrowers and each Lender. Upon notice thereof by Agent to Borrowers, any obligation of the Lenders to make SOFR Loans shall be suspended until Agent revokes such notice. Upon receipt of such notice, any outstanding affected SOFR Loans will be deemed to have been converted into Base Rate Loans at the end of the applicable Interest Period. Upon any such conversion, Borrowers shall also pay any additional amounts required pursuant to this Agreement.

(k) If any Lender determines that any Law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for any Lender or its applicable lending office to make, maintain or fund SOFR Loans, or to determine or charge interest rates based upon Term SOFR, then, upon notice thereof by such Lender to Borrowers (through Agent), any obligation of such Lender to make SOFR Loans shall be suspended, in each case until such Lender notifies Agent and Borrowers that the circumstances giving rise to such determination no longer exist. Upon receipt of such notice, all SOFR Loans shall become Base Rate Loans. Upon any such conversion, Borrowers shall also pay any additional amounts required pursuant to this Agreement.

(l) Each party’s obligations under this Section 2.8 shall survive the resignation or replacement of Agent or any assignment of rights by, or the replacement of, a Lender, and the repayment, satisfaction or discharge of all Obligations hereunder.”

3. **Conditions to Effectiveness.** This Agreement shall become effective as of the date (the “**Effective Date**”) on which each of the following conditions have been satisfied, as determined by Agent in its sole discretion; *provided* that the amendments set forth in Section 2 hereof shall not become effective until the first day of the next Interest Period after the Effective Date, at which point such amendments shall automatically become effective without any further action by any party:

(a) Each Credit Party shall have delivered to Agent this Agreement executed by an authorized officer of such Credit Party; and

(b) Agent shall have received a duly executed copy of the Amendment No. 2 to Credit, Security and Guaranty Agreement (Term Loan), dated as of the date hereof.

4. **No Waiver or Novation.** The execution, delivery and effectiveness of this Agreement shall not, except as expressly provided in this Agreement, operate as a waiver of any right, power or remedy of Agent, nor constitute a waiver of any provision of the Credit Agreement, the Financing Documents or any other documents, instruments and agreements executed or delivered in connection with any of the foregoing. Nothing herein is intended or shall be construed as a waiver of any existing Defaults or Events of Default under the Credit Agreement or the other Financing Documents or any of Agent’s rights and remedies in respect of such Defaults or Events of Default. This Agreement (together with any other document executed in connection herewith) is not intended to be, nor shall it be construed as, a novation of the Credit Agreement.

5. **Miscellaneous.**

(a) **Reference to the Effect on the Credit Agreement.** Upon the effectiveness of this Agreement, each reference in the Credit Agreement to “this Agreement,” “hereunder,” “hereof,” “herein,” or words of similar import shall mean and be a reference to the Credit Agreement, as amended by this Agreement. Except as specifically amended above, the Credit Agreement, and all other Financing Documents (and all covenants, terms, conditions and agreements therein), shall remain in full force and effect, and are hereby ratified and confirmed in all respects by each Credit Party.

(b) **Governing Law.** THIS AGREEMENT AND ALL DISPUTES AND OTHER MATTERS RELATING HERETO OR ARISING THEREFROM (WHETHER SOUNDING IN CONTRACT LAW, TORT LAW OR OTHERWISE), SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO CONFLICTS OF LAWS PRINCIPLES (OTHER THAN SECTION 5-1401 OF THE GENERAL OBLIGATIONS LAW).

(c) **Incorporation of Credit Agreement Provisions.** The provisions contained in Section 11.6 (Indemnification), Section 13.8(b) (Submission to Jurisdiction) and Section 13.9 (Waiver of Jury Trial) of the Credit Agreement are incorporated herein by reference to the same extent as if reproduced herein in their entirety.

(d) **Headings.** Section headings in this Agreement are included for convenience of reference only and shall not constitute a part of this Agreement for any other purpose.

(e) **Counterparts.** This Agreement may be signed in any number of counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same instrument. Signatures by facsimile or by electronic mail delivery of an electronic version of any executed signature page shall bind the parties hereto.

(f) **Entire Agreement.** This Agreement constitutes the entire agreement and understanding among the parties hereto and supersedes any and all prior agreements and understandings, oral or written, relating to the subject matter hereof.

(g) **Severability.** In case any provision of or obligation under this Agreement shall be invalid, illegal or unenforceable in any applicable jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

(h) **Successors/Assigns.** This Agreement shall bind, and the rights hereunder shall inure to, the respective successors and assigns of the parties hereto, subject to the provisions of the Credit Agreement and the other Financing Documents.

[SIGNATURES APPEAR ON FOLLOWING PAGES]

IN WITNESS WHEREOF, intending to be legally bound, and intending that this document constitute an agreement executed under seal, the undersigned have executed this Agreement under seal as of the day and year first hereinabove set forth.

AGENT:

MIDCAP FUNDING IV TRUST,

as Agent

By: Apollo Capital Management, L.P.,
its investment manager

By: Apollo Capital Management GP, LLC,
its general partner

By: /s/ Maurice Amsellem

Name: Maurice Amsellem

Title: Authorized Signatory

LENDER:

MIDCAP FUNDING IV TRUST,

as a Lender

By: Apollo Capital Management, L.P.,
its investment manager

By: Apollo Capital Management GP, LLC,
its general partner

By: /s/ Maurice Amsellem

Name: Maurice Amsellem

Title: Authorized Signatory

[Signatures Continue on Following Page]

BORROWERS:

XTANT MEDICAL, INC.

By: /s/ Sean E. Browne

Name Sean E. Browne

Title: Chief Executive Officer

BACTERIN INTERNATIONAL, INC.

By: /s/ Sean E. Browne

Name Sean E. Browne

Title: Chief Executive Officer

X-SPINE SYSTEMS, INC.

By: /s/ Sean E. Browne

Name Sean E. Browne

Title: Chief Executive Officer

GUARANTOR:

XTANT MEDICAL HOLDINGS, LLC

By: /s/ Sean E. Browne

Name Sean E. Browne

Title: President and Chief Executive Officer

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO EXCHANGE ACT RULES 13a-14(a)/15d-14(a), AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Sean E. Browne, certify that:

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

Date: November 3, 2022

By: /s/ Sean E. Browne

Sean E. Browne
President and Chief Executive Officer
(Principal Executive Officer)

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO EXCHANGE ACT RULES 13a-14(a)/15d-14(a), AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Scott Neils, certify that:

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

Date: November 3, 2022

By: /s/ Scott Neils

Scott Neils
Chief Financial Officer
(Principal Financial Officer)

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

In connection with the Quarterly Report of Xtant Medical Holdings, Inc. (the "Company"), on Form 10-Q for the quarterly period ended September 30, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Sean E. Browne, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge and belief:

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

November 3, 2022

/s/ Sean E. Browne

Sean E. Browne
President and Chief Executive Officer
(Principal Executive Officer)

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

In connection with the Quarterly Report of Xtant Medical Holdings, Inc. (the "Company"), on Form 10-Q for the quarterly period ended September 30, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Scott Neils, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge and belief:

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

November 3, 2022

/s/ Scott Neils

Scott Neils
Chief Financial Officer
(Principal Financial Officer)
