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, 2021

or

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

For the transition period from _____ to _____

Commission File Number: 001-34951

XTANT MEDICAL HOLDINGS, INC.
(Exact name of registrant as specified in its charter)

Delaware	20-5313323
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
664 Cruiser Lane Belgrade, Montana	59714
(Address of principal executive offices)	(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 ☐	Accelerated filer ☐
Non-accelerated filer ☒	Smaller reporting company ☒
	Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with 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, of registrant outstanding at November 9, 2021: 86,796,175.

XTANT MEDICAL HOLDINGS, INC.
FORM 10-Q
September 30, 2021

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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 the global novel strain of coronavirus (COVID-19) pandemic, and, in particular, the Delta variant and other variants that may arise in the future, on our business, operating results and financial condition, including the reduction in procedures in which our products are used and 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;

- 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 and our revenues, as well as global labor shortages;

- 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 revenues continue to decrease;

- 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;

- our ability to remain competitive;

- our ability to obtain donor cadavers for our products;

- our reliance on third party suppliers and manufacturers;

- our ability to engage and retain qualified technical and sales personnel and members of our management team;

- our dependence on and ability to retain and recruit independent sales agents and distributors and 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 and independent delivery networks;

- our ability to retain and expand our agreements with original equipment manufacturers and the effect of those sales on our business and operating results;

- our success in implementing key growth initiatives designed to increase our revenue and scale and risks associated with those initiatives, including effects on product sales mix, which may adversely affect our operating results;

- our success in implementing inventory reduction initiatives designed to improve our working capital and the effect of those initiatives on our operating results;

- our ability to obtain government and third-party coverage and reimbursement for our products;

- our ability to obtain and maintain regulatory approvals in the United States and abroad;

- the effect of new government regulations and our compliance with government regulations;

- our ability to successfully complete and integrate future business combinations or acquisitions;

- product liability claims and other litigation to which we may be subjected;
- product recalls and defects;
- our ability to remain accredited with the American Association of Tissue Banks;
- our ability to obtain and protect our intellectual property and proprietary rights;
- infringement and ownership of intellectual property;
- the availability of our facilities;
- our ability to comply with the covenants in our credit agreements;
- our ability to maintain sufficient liquidity to fund our operations;
- our ability to service our debt;
- our ability to obtain financing on reasonable terms when needed; 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, 2020 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, 2021 (Unaudited)	As of December 31, 2020
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 18,175	$ 2,341
Restricted cash	439	—
Trade accounts receivable, net of allowance for credit losses and doubtful accounts of $576 and $653, respectively	6,321	6,880
Inventories	19,708	21,408
Prepaid and other current assets	945	736
Total current assets	45,588	31,365
Property and equipment, net	4,971	4,347
Right-of-use asset, net	1,369	1,690
Goodwill	3,205	3,205
Intangible assets, net	414	457
Other assets	244	402
Total Assets	$ 55,791	$ 41,466
LIABILITIES & STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable	$ 2,355	$ 2,947
Accrued liabilities	4,079	5,462
Current portion of lease liability	451	423
Current portion of finance lease obligations	31	20
Line of credit	3,488	—
Current portion of long-term debt	—	16,797
Total current liabilities	10,404	25,649
Long-term Liabilities:		
Lease liability, less current portion	961	1,303
Finance lease obligation, less current portion	111	—
Long-term debt, less issuance costs	11,678	—
Total Liabilities	23,154	26,952
Commitments and Contingencies (Note 11)		
Stockholders' Equity (Deficit):		
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; 86,796,175 shares issued and outstanding as of September 30, 2021 and 77,573,680 shares issued and outstanding as of December 31, 2020	—	—
Additional paid-in capital	265,539	244,850
Accumulated deficit	(232,902)	(230,336)
Total Stockholders' Equity	32,637	14,514
Total Liabilities & Stockholders' Equity	$ 55,791	$ 41,466

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,	
	2021	**2020**	**2021**	**2020**
Revenue				
Orthopedic product sales	$ 13,743	$ 13,980	$ 41,193	$ 39,207
Other revenue	34	36	100	115
Total Revenue	13,777	14,016	41,293	39,322
Cost of sales	6,586	4,768	16,498	13,913
Gross Profit	7,191	9,248	24,795	25,409
Operating Expenses				
General and administrative	3,107	3,042	10,307	10,293
Sales and marketing	5,267	5,270	15,712	15,578
Research and development	262	176	719	529
Total Operating Expenses	8,636	8,488	26,738	26,400
(Loss) Income from Operations	(1,445)	760	(1,943)	(991)
Other Expense				
Interest expense	(329)	(2,097)	(529)	(5,258)
Total Other Expense	(329)	(2,097)	(529)	(5,258)
Net Loss Before Provision for Income Taxes	(1,774)	(1,337)	(2,472)	(6,249)
Provision for income taxes	(30)	(23)	(94)	(68)
Net Loss	$ (1,804)	$ (1,360)	$ (2,566)	$ (6,317)
Net loss per share:				
Basic	$ (0.02)	$ (0.10)	$ (0.03)	$ (0.48)
Dilutive	$ (0.02)	$ (0.10)	$ (0.03)	$ (0.48)
Shares used in the computation:				
Basic	86,763,210	13,231,823	84,926,656	13,210,386
Dilutive	86,763,210	13,231,823	84,926,656	13,210,386

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 (Deficit)
	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

	Common Stock		Additional Paid-In-Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount			
Balance at December 31, 2019	13,161,762	$ —	$ 179,061	$ (223,266)	$ (44,205)
ASU 2016-13 cumulative effect adjustment	—	—	—	(47)	(47)
Common stock issued on vesting of restricted stock units	61,803	—	—	—	—
Stock-based compensation	—	—	269	—	269
Net loss	—	—	—	(2,493)	(2,493)
Balance at March 31, 2020	13,223,565	—	179,330	(225,806)	(46,476)
Stock-based compensation	—	—	220	—	220
Issuance of warrant	—	—	1,862	—	1,862
Net loss	—	—	—	(2,464)	(2,464)
Balance at June 30, 2020	13,223,565	—	$ 181,412	$ (228,270)	$ (46,858)
Stock-based compensation	—	—	237	—	237
Common stock issued on vesting of restricted stock units	17,266	—	—	—	—
Net loss	—	—	—	(1,360)	(1,360)
Balance at September 30, 2020	13,240,831	$ —	$ 181,649	$ (230,630)	$ 47,981

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,	
	2021	**2020**
Operating activities:		
Net loss	$ (2,566)	$ (6,317)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	1,041	1,658
Gain on disposal of fixed assets	(164)	(307)
Non-cash interest	38	5,245
Non-cash rent	8	12
Stock-based compensation	1,501	726
Provision for (recoveries) reserve on accounts receivable	(25)	296
Provision for excess and obsolete inventory	572	429
Changes in operating assets and liabilities:		
Accounts receivable	584	2,463
Inventories	1,128	(4,999)
Prepaid and other assets	(126)	(890)
Accounts payable	(592)	626
Accrued liabilities	(1,383)	(589)
Net cash provided by (used in) operating activities	16	(1,647)
Investing activities:		
Purchases of property and equipment and intangible assets	(1,489)	(907)
Proceeds from sale of fixed assets	194	173
Net cash used in investing activities	(1,295)	(734)
Financing activities:		
Payment of taxes from withholding of common stock on vesting of restricted stock units	(23)	—
Payments on financing leases	(42)	(115)
Costs associated with refinancing	(136)	—
Payments on long-term debt	(411)	—
Borrowings on line of credit	22,767	—
Repayments of line of credit	(23,029)	—
Proceeds from private placement, net of cash issuance costs	18,426	—
Net cash provided by (used in) financing activities	17,552	(115)
Net change in cash and cash equivalents	16,273	(2,496)
Cash and cash equivalents at beginning of period	2,341	5,237
Cash and cash equivalents at end of period	$ 18,614	$ 2,741
Reconciliation of cash and restricted cash reported in the condensed consolidated balance sheets		
Cash and cash equivalents	$ 18,175	$ 2,741
Restricted cash	439	—
Total cash and restricted cash reported in the condensed consolidated balance sheets	$ 18,614	2,741

See notes to unaudited condensed consolidated financial statements.

Notes to Unaudited Condensed Consolidated Financial Statements

(1) 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.

Since March 2020, the COVID-19 pandemic has caused business closures, severe travel restrictions and implementation of social distancing measures. At the onset of the COVID-19 pandemic and more recently as a result of the recent surge in cases and hospitalizations caused by the Delta variant, 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, 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 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. This is particularly true during the third quarter of 2021, and most acutely starting in August, when 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 the increased hospitalizations, restrictions on elective procedures and staffing shortages, which negatively impacted our third quarter 2021 revenues and may continue to negatively impact our revenues. If our revenues continue to decline in future periods 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-down excess inventory, which would likely adversely affect our future operating results.

The accompanying condensed consolidated balance sheet as of December 31, 2020, 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, 2021.

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, 2020. 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.

Reclassifications

Certain prior year amounts have been reclassified to conform with current year presentation.

Private Placement

On February 24, 2021, we issued in a private placement (the "Private Placement") to a single healthcare-focused institutional accredited investor (the "Investor") 8,888,890 shares of our common stock at a purchase price of $2.25 per share, and warrants to purchase up to 6,666,668 shares of our common stock (the "Investor Warrant"). We received net cash proceeds of approximately $18.4 million, after deducting fees and other estimated offering expenses, from the Private Placement.

The Investor Warrant, described in more detail in *Note 10, "Warrants"*, has an exercise price of $2.25 per share, subject to customary anti-dilution, but not price protection, adjustments, is immediately exercisable and expires on the five-year anniversary of the date of issuance.

In connection with the Private Placement, we entered into a placement agent agreement with a placement agent (the "Placement Agent") pursuant to which the Placement Agent served as our exclusive placement agent in connection with the Private Placement (the "Placement Agent Agreement"). Pursuant to the Placement Agent Agreement, we agreed to pay the Placement Agent a fee equal to a certain percentage of the aggregate gross proceeds from the Private Placement. In addition to the cash fee, we agreed to issue to the Placement Agent a warrant to purchase up to 5.0% of the shares sold to the Investor in the Private Placement, or 444,444 shares of our common stock (the "Placement Agent Warrant"). The Placement Agent Warrant, described in more detail in *Note 10, "Warrants"*, has an exercise price of $2.8125 per share, subject to customary anti-dilution, but not price protection, adjustments, is immediately exercisable and expires on the five-year anniversary of the date of issuance.

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, 2021 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, 2021 and 2020.

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 months and nine months ended September 30, 2021 and 2020.

Net Income (Loss) Per Share

Basic net income (loss) per share is computed by dividing net income (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 income (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. Diluted net loss per share was the same as basic net loss per share for the three and nine months ended September 30, 2021 and 2020, as shares issuable upon the exercise of stock options and warrants were anti-dilutive as a result of the net losses incurred for those periods. Our diluted earnings per share is the same as basic earnings per share, as the effects of including 14,138,224 and 7,083,922 outstanding stock options, restricted stock units and warrants for the three and nine months ended September 30, 2021 and 2020, 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, 2021 and December 31, 2020.

(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 orthobiologics and spinal implant products 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, 2021 and 2020 (in thousands):

	Three Months Ended September 30, 2021	Percentage of Total Revenue	Three Months Ended September 30, 2020	Percentage of Total Revenue
Orthobiologics	$ 10,795	78%	$ 10,542	75%
Spinal implant	2,948	22%	3,438	25%
Other revenue	34	0%	36	0%
Total revenue	$ 13,777	100%	$ 14,016	100%

	Nine Months Ended September 30, 2021	Percentage of Total Revenue	Nine Months Ended September 30, 2020	Percentage of Total Revenue
Orthobiologics	$ 31,264	76%	$ 28,613	73%
Spinal implant	9,929	24%	10,594	27%
Other revenue	100	0%	115	0%
Total revenue	$ 41,293	100%	$ 39,322	100%

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 months ended September 30, 2021 and 2020 (in thousands):

	September 30, 2021	September 30, 2020
Balance at January 1	$ 653	$ 547
Provision for current expected credit losses	(63)	138
Write-offs charged against allowance	(36)	(17)
Balance at March 31	554	668
Provision for current expected credit losses	(81)	66
Write-offs charged against allowance	(3)	(6)
Balance at June 30	470	728
Provision for current expected credit losses	118	92
Write-offs charged against allowance	(12)	(74)
Balance at September 30	$ 576	$ 746

(4) Inventories

Inventories consist of the following (in thousands):

	September 30, 2021	December 31, 2020
Raw materials	$ 5,927	$ 3,757
Work in process	674	1,733
Finished goods	13,107	15,918
Total	$ 19,708	$ 21,408

(5) Property and Equipment, Net

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

	September 30, 2021	December 31, 2020
Equipment	$ 5,195	$ 4,950
Computer equipment	670	649
Computer software	490	570
Leasehold improvements	4,022	3,987
Surgical instruments	11,647	11,291
Total cost	22,024	21,447
Less: accumulated depreciation	(17,053)	(17,100)
Property and equipment, net	$ 4,971	$ 4,347

Depreciation expense related to property and equipment, including property under finance leases, for the three months ended September 30, 2021 and 2020 was $0.3 million and $0.5 million, respectively, and $1 million and $1.6 million for the nine months ended September 30, 2021 and 2020, respectively.

(6) Intangible Assets

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

	September 30, 2021	December 31, 2020
Patents	$ 847	$ 847
Accumulated amortization	(433)	(390)
Intangible assets, net	$ 414	$ 457

(7) Accrued Liabilities

Accrued liabilities consist of the following (in thousands):

	September 30, 2021	December 31, 2020
Cash compensation/commissions payable	$ 2,991	$ 4,057
Other accrued liabilities	1,088	1,405
Accrued liabilities	$ 4,079	$ 5,462

(8) Debt

The Company had a credit facility with OrbiMed Royalty Opportunities II, LP (“Royalty Opportunities”) (the “Prior Credit Agreement”), which was scheduled to mature on December 31, 2021, but was extinguished prior to maturity and replaced by the credit agreements with MidCap Financial Trust described below.

On May 6, 2021, the Company, as guarantor, and its 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 proceeds of the Term 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 Prior Credit Agreement. The proceeds of the Revolving Facility were used to pay transaction fees in connection with the Facilities, to pay in full all outstanding indebtedness and accrued interest under the Prior Credit Agreement, and for working capital and general corporate purposes. As a result of the refinancing, we recorded a gain on extinguishment totalling $0.8 million. The gain represents the difference between the carrying value of our outstanding loans under the Prior Credit Agreement prior to the extinguishment and $15.6 million, the reacquisition price. Because of the related party affiliation between the Company and Royalty Opportunities, this debt extinguishment resulted in an increase in additional paid-in capital rather than flowing through our consolidated statements of operations as a gain on extinguishment.

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%. The effective rate of the Term Facility was 8.83% as of September 30, 2021. In addition to paying interest on the outstanding loans under the Facilities, the Borrowers are also required to pay an unused line fee equal to 0.50% per annum in respect of unutilized commitments under the Revolving Facility, a fee for failure to maintain a minimum balance under the Revolving Facility, a collateral management fee under the Revolving Facility equal to 0.50% of the amount outstanding under the Revolving Facility, an origination fee equal to 0.50% of the Revolving Loan Commitment and 0.50% of the Term Loan Commitment, and if activated, of any additional term loan tranche, and certain other customary fees related to the Agent's administration of the Facilities.

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. As of September 30, 2021, we were in compliance with all covenants under the Credit Agreements.

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

	September 30, 2021	December 31, 2020
Amounts due under the Term Facility	$ 12,000	$ —
Amounts due under the Second Amended and Restated Credit Agreement	—	15,556
Premium related to Second Amendment	—	1,241
Less: unamortized debt issuance costs	(322)	—
Less: current maturities	—	(16,797)
Long-term debt	$ 11,678	$ —

(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, 2021 and 2020:

	2021			2020		
	Shares	Weighted Average Exercise Price Per Share	Weighted Average Fair Value at Grant Date Per Share	Shares	Weighted Average Exercise Price Per Share	Weighted Average Fair Value at Grant Date Per Share
Outstanding at January 1	2,190,892	$ 2.25	$ 1.65	602,966	$ 6.07	$ 3.99
Granted	1,012,083	$ 1.27	$ 1.07	239,884	$ 1.13	$ 0.90
Cancelled or expired	(269)	$ 314.19	$ 153.41	(120,738)	$ 6.42	$ 4.05
Outstanding at September 30	3,202,706	$ 1.92	$ 1.45	722,112	$ 4.37	$ 2.96
Exercisable at September 30	210,028	$ 9.02	$ 5.69	49,979	$ 33.70	$ 19.67

Restricted stock unit activity for awards granted under the 2018 Plan was as follows for the nine months ended September 30, 2021 and 2020:

	2021		2020	
	Shares	Weighted Average Fair Value at Grant Date Per Share	Shares	Weighted Average Fair Value at Grant Date Per Share
Outstanding at January 1	2,503,698	$ 1.54	499,914	$ 2.93
Granted	1,249,002	$ 1.27	679,803	$ 1.36
Vested	(349,572)	$ 1.92	(79,069)	$ 2.37
Outstanding at September 30	3,403,128	$ 1.40	1,100,648	$ 2.00

(10) Warrants

As noted in Note 1, "*Business Description, Basis of Presentation and Summary of Significant Accounting Policies*," on February 22, 2021, the Company issued the Investor Warrants and Placement Agent Warrants. The Investor and Placement Agent 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 Investor Warrants and Placement Agent Warrants is subject to standard and customary anti-dilution provisions for stock splits, stock dividends, or similar transactions. In addition, the Investor 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 Investor 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 Investor 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 Investor Warrants issued based on their relative fair values. We utilized a lattice valuation model to determine the fair value of the Investor Warrants. The fair value of the Placement Agent Warrants issued in connection with the Private Placement was determined using a Black Scholes model. Significant assumptions in both models included contractual term (5 years) and the estimated volatility factor based on a weighted average of comparable published betas of peer companies (61%).

Our warrant activity during the nine months ended September 30, 2021 was as follows:

	Common Stock Warrants	Weighted Average Exercise Price
Outstanding at January 1, 2021	421,278	$ 10.80
Issued	7,111,112	2.29
Outstanding at September 30, 2021	7,532,390	$ 2.76

(11) Commitments and Contingencies

Operating Leases

We lease three office facilities as of September 30, 2021 in Belgrade, Montana under non-cancelable operating lease agreements with expiration dates between 2023 and 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, 2021, the weighted-average remaining lease term was 3.2 years.

Present Value of Long-term Leases

(in thousands):	September 30, 2021
Right-of-use assets, net	$ 1,369
Current portion of lease liability	$ 451
Lease liability, less current portion	961
Total lease liability	$ 1,412

Future minimum payments for the next five years and thereafter as of September 30, 2021 under these long-term operating leases are as follows (in thousands):

Remainder of 2021	$ 127
2022	521
2023	489
2024	224
2025	179
Total future minimum lease payments	1,540
Less amount representing interest	(128)
Present value of obligations under operating leases	1,412
Less current portion	(451)
Long-term operating lease obligations	$ 961

Rent expense was $0.1 million for the three months ended September 30, 2021 and 2020 and $0.4 million for the nine months ended September 30, 2021 and 2020. We have no contingent rent agreements.

Litigation

In November 2020, we received a letter from a third party's legal counsel alleging that some of our hardware products allegedly infringe an expired patent and offering to discuss settlement terms. Without admitting any liability, in July 2021, we entered into a confidential settlement agreement and release that included, among other things, a full release of all asserted patent claims from the third party and otherwise settled the dispute in exchange for a one-time lump sum payment of $550,000, which was recorded as a special charge in the second quarter 2021 to general and administrative expense.

In addition, 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. We intend to continue to defend the Company vigorously in such matters and, when warranted, take legal action against others. Furthermore, we regularly assess contingencies to determine the degree of probability and range of possible loss for potential accrual in our financial statements. An estimated loss contingency is accrued in our financial statements if it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. We do not accrue amounts for liabilities that we do not believe are probable or that we consider immaterial to our overall financial position. Litigation is inherently unpredictable, and unfavorable resolutions could occur. As a result, assessing contingencies is highly subjective and requires judgment about future events. The amount of ultimate loss may exceed the Company's current accruals, and it is possible that its cash flows or results of operations could be materially affected in any particular period by the unfavorable resolution of one or more of these contingencies.

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, 2021 and 2020.

(13) Supplemental Disclosure of Cash Flow Information

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

	Nine Months Ended September 30,	
	2021	**2020**
Supplemental disclosure of cash flow information		
Cash paid during the period for:		
Interest	$ 485	$ 13
Non-cash activities:		
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	$ —
Fixed assets acquired under finance lease	$ 163	$ —
Warrants issued in connection with the Private Placement to placement agents	$ 351	$ —
ASU 2016-13 cumulative effect adjustment	$ —	$ 47
Recognition or warrants issued in connect with debt modification	$ —	$ 1,862

(14) Related Party Transactions

Royalty Opportunities, which owns approximately 20% of the Company's outstanding common stock, was the sole holder of our outstanding long-term debt and a party to the Second Amended and Restated Credit Agreement, which was terminated in connection with our debt refinancing described under Note 8, "*Debt*". In addition, 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, 2020, we are party to an Investor Rights Agreement, Registration Rights Agreements and certain other agreements with Royalty Opportunities and ROS Acquisition Offshore LP, which are funds affiliated with OrbiMed Advisors LLC ("OrbiMed"). OrbiMed beneficially owns 84% 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% and 98% of sales were in the United States for the three months ended September 30, 2021 and 2020, respectively, and 99% and 98% for the nine months ended September 30, 2021 and 2020, respectively. Total revenue by major geographic area is as follows (in thousands):

	Three Months Ended September 30,	
	2021	**2020**
United States	$ 13,629	$ 13,773
Rest of world	148	243
Total revenue	$ 13,777	$ 14,016

	Nine Months Ended September 30,	
	2021	**2020**
United States	$ 40,813	$ 38,340
Rest of world	480	982
Total revenue	$ 41,293	$ 39,322

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, 2020. 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.

During 2021, we have focused 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. This year we have launched three new products, with a fourth product, a bone marrow aspirate concentrate offering, set to be introduced in November 2021. We have met our goal to expand our distribution network for 2021 by bringing on over forty new agents through September 2021. We have added new sales personnel to leverage certain adjacent non-spine markets, such as the foot and ankle, cranio-maxillofacial, oncology, joint reconstruction and trauma markets. We began making progress towards this goal during the three months ended September 30, 2021 when we expanded our private label and original equipment manufacturer sales into these adjacent markets. Finally, one of our key growth initiatives is to add depth to our product offering through targeted strategic acquisitions. 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.

Impact of the COVID-19 Pandemic

Since March 2020, the COVID-19 pandemic has caused business closures, severe travel restrictions and implementation of social distancing measures. At the onset of the COVID-19 pandemic and more recently as a result of the recent surge in cases and hospitalizations caused primarily by the Delta variant, 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, 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 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 will likely continue to have a material adverse effect on our revenues.

While eased COVID-19 restrictions caused our revenues to improve in the nine months ended September 30, 2021 as compared to the prior year period, the resurgence in cases and hospitalizations during the third quarter of 2021 caused our revenues to decline during the three months ended September 30, 2021 as compared to the prior year period and the second quarter of 2021. Throughout the third quarter of 2021, and most acutely starting in August 2021, 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 increased hospitalizations, restrictions on elective procedures and staffing shortages, which negatively impacted our third quarter 2021 revenues. This reduction in elective procedures and staffing issues have continued into the beginning of fourth quarter of 2021 and could continue into 2022 thereby continuing to negatively impact our revenues. Additionally, it is possible that restrictions could be reinstated due to a resurgence of COVID-19 cases and hospitalizations, whether due to the Delta variant or a new variant, or staffing shortages could continue to persist or worsen, which would continue to adversely impact our revenues.

The COVID-19 pandemic also has caused 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 will depend on future developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning COVID-19 variants, the actions to contain it or treat its impact, the availability, acceptance and effectiveness of vaccines, future resurgences of the virus and its variants, the speed at which government restrictions are lifted, 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-down excess inventory, which would likely adversely affect our future operating results.

See “Risk Factors” in Item 1A of Part II of this report and in Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2020 as filed with the Securities and Exchange Commission for further information of the possible impact of the COVID-19 pandemic on our business.

Results of Operations

Comparison of Three and Nine Months Ended September 30, 2021 and September 30, 2020

Revenue

Total revenue for the three and nine months ended September 30, 2021 was $13.8 million and $41.3 million, respectively, which represents a decrease of 1.7% and an increase of 5.0%, respectively, compared to $14.0 million and $39.3 million for the three and nine months ended September 30, 2020, respectively. The decrease for the three-month comparison is largely attributable to reductions in elective procedures in our key markets due to the delta variant of COVID-19. The increase for the nine-month comparison is largely attributable to an increase in elective procedures as a result of eased COVID-19 pandemic restrictions during earlier parts of the current year period compared to the same prior year period.

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 increased by 38.1%, or $1.8 million, to $6.6 million for the three months ended September 30, 2021 from $4.8 million for the three months ended September 30, 2020. Cost of sales increased by 18.6%, or $2.6 million, to $16.5 million for the nine months ended September 30, 2021 from $13.9 million for the nine months ended September 30, 2020. The increase in cost of sales during the three months ended September 30, 2021 is primarily due to increased under absorption of labor and overhead of $0.8 million driven by initiatives to reduce inventory, additional expense of $0.3 million related to increased reserve expense for excess and obsolete inventory with the remaining increase resulting primarily from sales mix and sell through of product subject to greater production costs during prior periods. The increase in cost of sales during the nine months ended September 30, 2021 is primarily due to higher revenue during the nine months ended September 30, 2021 versus the comparable period in 2020, as mentioned above, and increased under absorption of labor and overhead of $1.2 million resulting from excess capacity driven by initiatives to reduce inventory and sell through of product subject to greater production costs during prior periods.

Gross profit as a percentage of revenue decreased to 52.2% for the three months ended September 30, 2021 compared to 66.0% for the same period in 2020. Gross profit as a percentage of revenue decreased to 60.0% for the nine months ended September 30, 2021 compared to 64.6% for the same period in 2020. Of the 13.8% decrease for the three months ended September 30, 2021, 5.6% was due to reduced absorption of labor and overhead, a decrease of 2.2% resulted from greater reserve expense for excess and obsolete inventory, 3.4% was due to sales mix including greater sales of lower margin private label and original equipment manufacturer sales, and 3.6% was due to sell through of product subject to greater production costs during prior periods. Of the 4.6% decrease for the nine months ended September 30, 2021, 3.0% was due to reduced absorption of labor and overhead and 1.8% was due to sales mix. We expect higher product costs to continue in future periods but otherwise expect gross profit to improve as the effect of COVID-19 on surgical procedures diminishes.

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 2.1%, or $0.1 million, to $3.1 million for the three months ended September 30, 2021, compared to $3.0 million for the same period in 2020. General and administrative expenses were $10.3 million for the nine months ended September 30, 2021, which were flat compared to $10.3 million for the same period in 2020. The increase for the three-month comparison is primarily attributable to additional salaries and wage expenses of $0.2 million and write-offs of product registrations in South America of $0.2 million during the three months ended September 30, 2021, partially offset by reduced expense of $0.5 million related to various employee compensation plans. The nine-month comparison includes additional legal settlement expenses of $0.6 million and an additional $0.3 million related to various compensation plans during the nine months ended September 30, 2021, partially offset by reduced severance expenses of $0.7 million during the nine months ended September 30, 2021.

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 of $5.3 million for the three months ended September 30, 2021 were flat compared to $5.3 million for the same period of 2020. Sales and marketing expenses increased 0.9%, or $0.1 million, to $15.7 million for the nine months ended September 30, 2021, compared to $15.6 million for the same period of 2020. The three-month comparison included reduced commissions expense of $0.6 million resulting from a greater mix of private label and original equipment manufacturer sales versus the comparable period in 2020, partially offset by increased salaries and wages of $0.3 million due to increased headcount and additional marketing and travel expenses of $0.2 million. The increase for the nine-month comparison is primarily due to additional independent agent sales commissions and incentives of $0.1 million due to higher revenues versus the comparable period in 2020.

Research and Development

Research and development expenses consist primarily of internal costs for the development of new technologies and processes. Research and development expenses increased 49.6% or $0.1 million, to $0.3 million for the three months ended September 30, 2021, compared to $0.2 million for the three months ended September 30, 2020. Research and development expenses increased 36.0%, or $0.2 million, to $0.7 million for the nine months ended September 30, 2021, compared to $0.5 million for the nine months ended September 30, 2020. These increase in research and development expenses are associated with additional salaries and wages associated with increased headcount during the three and nine months ended September 30, 2021 compared to the prior year periods.

Interest Expense

Interest expense consists of interest incurred from our debt instruments. Interest expense was $0.3 million for the three months ended September 30, 2021 compared to $2.1 million for the three months ended September 30, 2021. Interest expense was $0.5 million for the nine months ended September 30, 2021 and $5.3 million for the nine months ended September 30, 2020. The decrease in interest expense during the three and nine months ended September 30, 2021 compared to the comparable periods in the prior year resulted from our October 1, 2020 debt restructuring which, among other things, reduced outstanding principal and paid-in-kind interest by $61.7 million.

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, 2021 and December 31, 2020 (in thousands):

	September 30, 2021	December 31, 2020
Cash and cash equivalents	$ 18,614	$ 2,341
Accounts receivable, net	6,321	6,880
Inventories	19,708	21,408
Total current assets	45,588	31,365
Accounts payable	2,355	2,947
Accrued liabilities	4,079	5,462
Line of credit	3,488	—
Current portion of long-term debt	—	16,797
Total current liabilities	10,404	25,649
Total working capital	35,184	5,716

Our increase in cash and cash equivalents is due primarily to the completion of a private placement of shares of common stock and warrants in February 2021. On February 24, 2021, we issued in a private placement to a single healthcare-focused institutional accredited investor 8,888,890 shares of our common stock at a purchase price of $2.25 per share, and a warrant to purchase up to 6,666,668 shares of our common stock. The warrant has an exercise price of $2.25 per share, subject to customary anti-dilution, but not price protection, adjustments, is immediately exercisable and expires on the five-year anniversary of the date of issuance. We received net proceeds of approximately $18.4 million, after deducting fees and other estimated offering expenses, from the private placement. We expect to use these net proceeds for working capital and other general corporate purposes.

Cash Flows

Net cash provided by operating activities for the first nine months of 2021 was $16 thousand attributed primarily to the cash generated by reductions to accounts receivable of $0.6 million and finished goods and work in process inventories of $3.9 million, partially offset by reductions to accrued liabilities of $1.4 million and increases to raw materials of $2.2 million in connection with realignments of the Company's procurement and production processes. For the comparable period of 2020, net cash used in operating activities was $1.6 million.

Net cash used in investing activities for the first nine months of 2021 and 2020 was $1.3 million and $0.7 million, respectively, primarily representing purchases of property and equipment.

Net cash provided by financing activities was $17.6 million for the first nine months of 2021, which was primarily attributable to $18.4 million of proceeds from our February 2021 private placement, net of issuance costs. Net cash used in financing activities was $0.1 million for the comparable period of 2020.

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. 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 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. The proceeds of the Revolving Facility may be used to pay transaction fees in connection with the Facilities, to pay in full all outstanding indebtedness and accrued interest under the Company's prior credit facility, and for working capital and general corporate purposes.

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%.

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. As of September 30, 2021, 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, OrbiMed Royalty Opportunities II, LP ("Royalty Opportunities") and ROS Acquisition Offshore LP ("ROS"), as subsequently amended (the "Second A&R Credit Agreement"), 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 Royalty Opportunities in its role as sole lender thereunder.

Cash Requirements

We believe that our $18.6 million of cash and cash equivalents as of September 30, 2021, together with amounts available under the Facilities, will be sufficient to meet our anticipated cash requirements through at least November 2022. However, we may require or seek additional capital to fund our future operations and business strategy prior to November 2022. 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 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 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 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.

Off Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity or capital expenditures, or capital resources that are material to an investor in our common stock.

Critical Accounting Estimates

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, 2021 as compared to the critical accounting estimates described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

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 Exchange Act) as of September 30, 2021. Based upon that evaluation, our principal executive officer and principal financial officer concluded that as of September 30, 2021, our disclosure controls and procedures were effective.

Changes in Internal Control over Financial Reporting

There were no changes in the Company's internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the three months ended September 30, 2021, 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

Although Item 1A is inapplicable to Xtant as a smaller reporting company, we hereby disclose the following additional risk:

Our business, operating results and financial condition have been and will likely continue to be materially adversely affected by the COVID-19 pandemic.

Since March 2020, the COVID-19 pandemic has caused business closures, severe travel restrictions and implementation of social distancing measures. At the onset of the COVID-19 pandemic and more recently as a result of the recent surge in cases and hospitalizations caused by the Delta variant, 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, 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 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 will likely continue to have a material adverse effect on our revenues.

The resurgence in cases and hospitalizations during the third quarter of 2021 caused our revenues to decline during the three months ended September 30, 2021 as compared to the prior year period and the second quarter of 2021. Throughout the third quarter of 2021, and most acutely starting in August 2021, 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 increased hospitalizations, restrictions on elective procedures and staffing shortages, which negatively impacted our third quarter 2021 revenues. This reduction in elective procedures and staffing issues have continued into the beginning of fourth quarter of 2021 and could continue into 2022 thereby continuing to negatively impact our revenues. Additionally, it is possible that restrictions could be reinstated due to a resurgence of COVID-19 cases and hospitalizations, whether due to the Delta variant or a new variant, or staffing shortages could continue to persist or worsen, which would continue to adversely impact our revenues.

The COVID-19 pandemic also has caused adverse effects on general commercial activity and the global economy, which has led to an economic slowdown and recession and could cause other unpredictable events, any of which could adversely affect our business, operating results or financial condition. The adverse effect of the pandemic on the broader economy also will likely negatively affect demand for procedures using our products, both in the near- and long-term. The pandemic also has disrupted the global supply chain, impacting 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. As a result of this negative effect of the pandemic on our economy, one or more of our distributors, independent sales representatives, customers, contract manufacturers and suppliers may experience financial distress, cancel, postpone or delay orders, be unable to perform under a contract, file for bankruptcy protection, go out of business, or suffer disruptions in their business or we may need to offer special payment terms or relief to our distributors, independent sales representatives and customers. Accordingly, we believe we are exposed to heightened credit risk as a result of the pandemic. This could adversely impact our ability to manufacture and provide products and otherwise operate our business, as well as increase our costs and expenses.

The COVID-19 pandemic has also led to and could continue to lead to severe disruption and volatility in the global capital markets, which could increase our cost of future capital and adversely affect our ability to access the capital markets in the future. The decline in our revenues and adverse impact of the pandemic on our other operating results could impact our debt covenants under our credit facility and our ability to access funding thereunder or refinance that debt or extend its maturity date. We may need to borrow funds from alternative sources, such as other lenders and institutions or government agencies. There can be no guarantee that such borrowing will be available or available on favorable terms or without restrictions that may otherwise impair our operating flexibility.

The foregoing and other continued disruptions to our business as a result of COVID-19 have resulted, and could continue to result, in a material adverse effect on our business, operating results, financial condition, prospects and the trading price of our common stock throughout 2021. 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 will depend on future developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning COVID-19 variants, the actions to contain it or treat its impact, the availability, acceptance and effectiveness of vaccines, future resurgences of the virus and its variants, the speed at which government restrictions are lifted, 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.

No assurance can be provided that our revenues will ever return to pre-COVID-19 levels. 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 we could experience an increase in the amount of excess inventory quantities on hand and be required to recognize inventory write-downs, each or all of which could adversely affect our future results of operations.

The COVID-19 pandemic also heightens the risks in certain of the other risk factors described in our Annual Report on Form 10-K for the year ended December 31, 2020.

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

Not applicable.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

Change of Transfer Agent

We have appointed Broadridge Corporate Issuers Solutions, Inc. ("Broadridge") as the transfer agent and registrar of our common stock effective as of November 5, 2021. Beginning November 5, 2021, Xtant stockholder inquiries can be directed to Broadridge at the following address, phone number, and e-mail address:

Mail: Xtant Medical Holdings, Inc.
c/o Broadridge Corporate Issuer Solutions
P.O. Box 1342
Brentwood, NY 11717

Overnight Packages: Xtant Medical Holdings, Inc.
c/o Broadridge Corporate Issuer Solutions
1155 Long Island Ave.
Edgewood, NY 11717

Phone: 877-830-4936

E-mail: shareholder@broadridge.com

ITEM 6. EXHIBITS

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

Exhibit No.	Description
3.1	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).
3.2	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).
3.3	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).
3.4	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).
31.1	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).
31.2	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).
32.1	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).
32.2	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).
101	The following materials from Xtant's Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2021, 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).
104	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 12, 2021

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

Date: November 12, 2021

By: */s/ Greg Jensen*
Name: Greg Jensen
Title: Vice President, Finance and Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

Exhibit 31.1

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 12, 2021

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

Exhibit 31.2

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, Greg Jensen, 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 12, 2021

By: */s/ Greg Jensen*
Greg Jensen
Vice President, Finance and Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

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, 2021, 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 12, 2021

/s/ Sean E. Browne

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

Exhibit 32.2

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, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Greg Jensen, Vice President, Finance and 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 12, 2021

/s/ Greg Jensen

Greg Jensen
Vice President, Finance and Chief Financial Officer
(Principal Financial Officer)