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

# FORM 10-Q

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

For the quarterly period ended **June 30, 2021**

OR

o 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: 1-13165

# CRYOLIFE INC.

(Exact name of registrant as specified in its charter)

| **Florida** | **59-2417093** |
|---|---|
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification No.) |
| **1655 Roberts Boulevard, NW, Kennesaw, Georgia** | **30144** |
| (Address of principal executive offices) | (Zip Code) |

**(770) 419-3355**
(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, $0.01 par value | CRY | New York Stock Exchange |

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

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 x No o

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 | x | Accelerated Filer | o |
| Non-accelerated Filer | o | Smaller Reporting Company | o |
| | | Emerging Growth Company | o |

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 o No x

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

| Class | Outstanding at July 23, 2021 |
|---|---|
| Common Stock, $0.01 par value | 39,306,312 |

**TABLE OF CONTENTS**

**Part I – FINANCIAL INFORMATION**

**Item 1. Financial Statements.**

**CryoLife, Inc. and Subsidiaries**
**Condensed Consolidated Statements of Operations and Comprehensive Income (Loss)**
*In Thousands, Except Per Share Data*
**(Unaudited)**

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | **2021** | **2020** | **2021** | **2020** |
| **Revenues:** | | | | |
| Products | $ 56,076 | $ 37,268 | $ 109,421 | $ 83,688 |
| Preservation services | 20,072 | 16,503 | 37,814 | 36,512 |
| **Total revenues** | **76,148** | **53,771** | **147,235** | **120,200** |
| **Cost of products and preservation services:** | | | | |
| Products | 16,178 | 10,040 | 31,089 | 23,080 |
| Preservation services | 9,457 | 7,841 | 17,795 | 17,059 |
| **Total cost of products and preservation services** | **25,635** | **17,881** | **48,884** | **40,139** |
| **Gross margin** | **50,513** | **35,890** | **98,351** | **80,061** |
| **Operating expenses:** | | | | |
| General, administrative, and marketing | 40,830 | 32,288 | 79,468 | 71,290 |
| Research and development | 8,360 | 5,522 | 16,114 | 11,878 |
| **Total operating expenses** | **49,190** | **37,810** | **95,582** | **83,168** |
| **Operating income (loss)** | **1,323** | **(1,920)** | **2,769** | **(3,107)** |
| Interest expense | 4,855 | 3,652 | 8,895 | 7,040 |
| Interest income | (18) | (66) | (42) | (168) |
| Other (income) expense, net | (1,331) | (740) | 600 | 2,922 |
| **Loss before income taxes** | **(2,183)** | **(4,766)** | **(6,684)** | **(12,901)** |
| Income tax benefit | (5) | (1,077) | (1,368) | (2,547) |
| **Net loss** | $ **(2,178)** | $ **(3,689)** | $ **(5,316)** | $ **(10,354)** |
| **Loss per common share:** | | | | |
| **Basic** | $ **(0.06)** | $ **(0.10)** | $ **(0.14)** | $ **(0.27)** |
| **Diluted** | $ **(0.06)** | $ **(0.10)** | $ **(0.14)** | $ **(0.27)** |
| **Weighted-average common shares outstanding:** | | | | |
| Basic | 38,943 | 37,520 | 38,841 | 37,455 |
| Diluted | 38,943 | 37,520 | 38,841 | 37,455 |
| **Net loss** | $ **(2,178)** | $ **(3,689)** | $ **(5,316)** | $ **(10,354)** |
| **Other comprehensive income (loss):** | | | | |
| Foreign currency translation adjustments | 2,973 | 4,434 | (7,317) | (29) |
| **Comprehensive income (loss)** | $ **795** | $ **745** | $ **(12,633)** | $ **(10,383)** |

See accompanying Notes to Condensed Consolidated Financial Statements

**CryoLife, Inc. and Subsidiaries**
**Condensed Consolidated Balance Sheets**
*In Thousands*

| | June 30, 2021 | December 31, 2020 |
|---|---|---|
| | (Unaudited) | |
| **ASSETS** | | |
| **Current assets:** | | |
| Cash and cash equivalents | $ 50,473 | $ 61,412 |
| Restricted securities | 554 | 546 |
| Trade receivables, net | 49,672 | 45,964 |
| Other receivables | 3,612 | 2,788 |
| Inventories, net | 76,362 | 73,038 |
| Deferred preservation costs | 41,276 | 36,546 |
| Prepaid expenses and other | 16,105 | 14,295 |
| **Total current assets** | **238,054** | **234,589** |
| | | |
| Goodwill | 255,484 | 260,061 |
| Acquired technology, net | 177,023 | 186,091 |
| Operating lease right-of-use assets, net | 48,359 | 18,571 |
| Other intangibles, net | 38,817 | 40,966 |
| Property and equipment, net | 36,417 | 33,077 |
| Deferred income taxes | 1,681 | 1,446 |
| Other assets | 14,662 | 14,603 |
| **Total assets** | **$ 810,497** | **$ 789,404** |
| | | |
| **LIABILITIES AND SHAREHOLDERS' EQUITY** | | |
| **Current liabilities:** | | |
| Current portion of contingent consideration | $ 17,300 | $ 16,430 |
| Accounts payable | 10,773 | 9,623 |
| Accrued compensation | 9,808 | 10,192 |
| Accrued expenses | 7,625 | 7,472 |
| Accrued procurement fees | 4,013 | 3,619 |
| Taxes payable | 3,338 | 2,808 |
| Current maturities of operating leases | 2,473 | 5,763 |
| Current portion of long-term debt | 1,652 | 1,195 |
| Other liabilities | 1,962 | 3,366 |
| **Total current liabilities** | **58,944** | **60,468** |
| | | |
| Long-term debt | 308,050 | 290,468 |
| Non-current maturities of operating leases | 47,440 | 14,034 |
| Contingent consideration | 46,900 | 43,500 |
| Deferred income taxes | 29,583 | 34,713 |
| Deferred compensation liability | 5,503 | 5,518 |
| Other liabilities | 12,242 | 11,990 |
| **Total liabilities** | **$ 508,662** | **$ 460,691** |
| | | |
| **Commitments and contingencies** | | |
| | | |
| **Shareholders' equity:** | | |
| Preferred stock | -- | -- |
| Common stock (issued shares of 40,742 in 2021 and 40,394 in 2020) | 407 | 404 |
| Additional paid-in capital | 305,157 | 316,192 |
| Retained earnings | 11,493 | 20,022 |
| Accumulated other comprehensive (loss) income | (574) | 6,743 |
| Treasury stock, at cost, 1,487 shares as of June 30, 2021 and December 31, 2020, respectively | (14,648) | (14,648) |
| **Total shareholders' equity** | **301,835** | **328,713** |
| | | |
| **Total liabilities and shareholders' equity** | **$ 810,497** | **$ 789,404** |

See accompanying Notes to Condensed Consolidated Financial Statements.

**CryoLife, Inc. and Subsidiaries**
**Condensed Consolidated Statements of Cash Flows**
*In Thousands*
**(Unaudited)**

| | Six Months Ended June 30, | |
|---|---|---|
| | **2021** | **2020** |
| **Net cash flows from operating activities:** | | |
| Net loss | $ (5,316) | $ (10,354) |
| | | |
| Adjustments to reconcile net loss to net cash from operating activities: | | |
| Depreciation and amortization | 11,999 | 9,642 |
| Non-cash compensation | 4,595 | 5,074 |
| Change in fair value of contingent consideration | 4,270 | -- |
| Non-cash lease expense | 3,575 | 3,518 |
| Write-down of inventories and deferred preservation costs | 2,988 | 1,217 |
| Deferred income taxes | (4,269) | (1,894) |
| Other | 2,174 | 859 |
| Changes in operating assets and liabilities: | | |
| Accounts payable, accrued expenses, and other liabilities | (1,166) | (142) |
| Prepaid expenses and other assets | (2,076) | (3,422) |
| Receivables | (5,454) | 7,644 |
| Inventories and deferred preservation costs | (11,712) | (12,902) |
| **Net cash flows used in operating activities** | **(392)** | **(760)** |
| | | |
| **Net cash flows from investing activities:** | | |
| Capital expenditures | (7,249) | (3,776) |
| Other | 205 | (705) |
| **Net cash flows used in investing activities** | **(7,044)** | **(4,481)** |
| | | |
| **Net cash flows from financing activities:** | | |
| Proceeds from exercise of stock options and issuance of common stock | 2,321 | 1,175 |
| Proceeds from issuance of convertible debt | -- | 100,000 |
| Proceeds from revolving line of credit | -- | 30,000 |
| Proceeds from financing insurance premiums | -- | 2,816 |
| Repayment of revolving line of credit | -- | (30,000) |
| Payment of debt issuance costs | (2,219) | (3,647) |
| Redemption and repurchase of stock to cover tax withholdings | (1,831) | (1,728) |
| Repayment of term loan | (1,405) | (1,389) |
| Other | (603) | (1,041) |
| **Net cash flows (used in) provided by financing activities** | **(3,737)** | **96,186** |
| | | |
| Effect of exchange rate changes on cash, cash equivalents, and restricted securities | 242 | 879 |
| **(Decrease) increase in cash, cash equivalents, and restricted securities** | **(10,931)** | **91,824** |
| | | |
| Cash, cash equivalents, and restricted securities beginning of period | 61,958 | 34,294 |
| **Cash, cash equivalents, and restricted securities end of period** | **$ 51,027** | **$ 126,118** |

See accompanying Notes to Condensed Consolidated Financial Statements

**CryoLife, Inc. and Subsidiaries**
**Condensed Consolidated Statements of Shareholders' Equity**
*In Thousands*
**(Unaudited)**

| | Common Stock | | Additional Paid-In Capital | Retained Earnings | Accumulated Other Comprehensive Loss | Treasury Stock | | Total Shareholders' Equity |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | | | | Shares | Amount | |
| **Balance at March 31, 2021** | **40,585** | **$ 406** | **$ 301,449** | **$ 13,671** | **$ (3,547)** | **(1,487)** | **$ (14,648)** | **$ 297,331** |
| Net loss | -- | -- | -- | (2,178) | -- | -- | -- | (2,178) |
| Other comprehensive income | -- | -- | -- | -- | 2,973 | -- | -- | 2,973 |
| Equity compensation | 37 | -- | 2,267 | -- | -- | -- | -- | 2,267 |
| Exercise of options | 121 | 1 | 1,459 | -- | -- | -- | -- | 1,460 |
| Redemption and repurchase of stock to cover tax withholdings | (1) | -- | (18) | -- | -- | -- | -- | (18) |
| **Balance at June 30, 2021** | **40,742** | **$ 407** | **$ 305,157** | **$ 11,493** | **$ (574)** | **(1,487)** | **$ (14,648)** | **$ 301,835** |

.

| | Common Stock | | Additional Paid-In Capital | Retained Earnings | Accumulated Other Comprehensive Income (Loss) | Treasury Stock | | Total Shareholders' Equity |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | | | | Shares | Amount | |
| **Balance at December 31, 2020** | **40,394** | **$ 404** | **$ 316,192** | **$ 20,022** | **$ 6,743** | **(1,487)** | **$ (14,648)** | **$ 328,713** |
| Net loss | -- | -- | -- | (5,316) | -- | -- | -- | (5,316) |
| Other comprehensive loss | -- | -- | -- | -- | (7,317) | -- | -- | (7,317) |
| Adoption of ASU 2020-06 | -- | -- | (16,426) | (3,213) | -- | -- | -- | (19,639) |
| Equity compensation | 244 | 2 | 4,902 | -- | -- | -- | -- | 4,904 |
| Exercise of options | 140 | 1 | 1,730 | -- | -- | -- | -- | 1,731 |
| Employee stock purchase plan | 37 | 1 | 589 | -- | -- | -- | -- | 590 |
| Redemption and repurchase of stock to cover tax withholdings | (73) | (1) | (1,830) | -- | -- | -- | -- | (1,831) |
| **Balance at June 30, 2021** | **40,742** | **$ 407** | **$ 305,157** | **$ 11,493** | **$ (574)** | **(1,487)** | **$ (14,648)** | **$ 301,835** |

See accompanying Notes to Condensed Consolidated Financial Statements

**CryoLife, Inc. and Subsidiaries**
**Condensed Consolidated Statements of Shareholders' Equity**
*In Thousands*
**(Unaudited)**

| | Common Stock | | Additional Paid-In Capital | Retained Earnings | Accumulated Other Comprehensive Loss | Treasury Stock | | Total Shareholders' Equity |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | | | | Shares | Amount | |
| **Balance at March 31, 2020** | **39,219** | **$ 392** | **$ 273,821** | **$ 30,039** | **$ (13,052)** | **(1,484)** | **$ (14,591)** | **$ 276,609** |
| Net loss | -- | -- | -- | (3,689) | -- | -- | -- | (3,689) |
| Other comprehensive income | -- | -- | -- | -- | 4,434 | -- | -- | 4,434 |
| Equity component of the convertible note issuance | -- | -- | 16,426 | -- | -- | -- | -- | 16,426 |
| Equity compensation | 59 | 1 | 2,680 | -- | -- | -- | -- | 2,681 |
| Exercise of options | 11 | 1 | 110 | -- | -- | -- | -- | 111 |
| Redemption and repurchase of stock to cover tax withholdings | (1) | (1) | (15) | -- | -- | -- | -- | (16) |
| **Balance at June 30, 2020** | **39,288** | **$ 393** | **$ 293,022** | **$ 26,350** | **$ (8,618)** | **(1,484)** | **$ (14,591)** | **$ 296,556** |

| | Common Stock | | Additional Paid-In Capital | Retained Earnings | Accumulated Other Comprehensive Loss | Treasury Stock | | Total Shareholders' Equity |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | | | | Shares | Amount | |
| **Balance at December 31, 2019** | **39,018** | **$ 390** | **$ 271,782** | **$ 36,704** | **$ (8,589)** | **(1,484)** | **$ (14,591)** | **$ 285,696** |
| Net loss | -- | -- | -- | (10,354) | -- | -- | -- | (10,354) |
| Other comprehensive loss | -- | -- | -- | -- | (29) | -- | -- | (29) |
| Equity component of the convertible note issuance | -- | -- | 16,426 | -- | -- | -- | -- | 16,426 |
| Equity compensation | 267 | 3 | 5,367 | -- | -- | -- | -- | 5,370 |
| Exercise of options | 44 | 1 | 486 | -- | -- | -- | -- | 487 |
| Employee stock purchase plan | 30 | -- | 688 | -- | -- | -- | -- | 688 |
| Redemption and repurchase of stock to cover tax withholdings | (71) | (1) | (1,727) | -- | -- | -- | -- | (1,728) |
| **Balance at June 30, 2020** | **39,288** | **$ 393** | **$ 293,022** | **$ 26,350** | **$ (8,618)** | **(1,484)** | **$ (14,591)** | **$ 296,556** |

See accompanying Notes to Condensed Consolidated Financial Statements

**CryoLife, Inc. and Subsidiaries**
**Notes to Condensed Consolidated Financial Statements**
**(Unaudited)**

## 1. Basis of Presentation and Summary of Significant Accounting Policies

***Overview***

The accompanying Condensed Consolidated Financial Statements include the accounts of CryoLife, Inc. and its subsidiaries ("CryoLife," the "Company," "we," or "us"). All significant intercompany accounts and transactions have been eliminated in consolidation. The accompanying Condensed Consolidated Balance Sheet as of December 31, 2020 has been derived from audited financial statements. The accompanying unaudited Condensed Consolidated Financial Statements as of, and for the three and six months ended, June 30, 2021 and 2020 have been prepared in accordance with (i) accounting principles generally accepted in the U.S. for interim financial information and (ii) the instructions to Form 10-Q and Rule 10-01 of Regulation S-X of the U.S. Securities and Exchange Commission ("SEC"). Accordingly, such statements do not include all the information and disclosures that are required by accounting principles generally accepted in the U.S. for a complete presentation of financial statements. In the opinion of management, all adjustments (including those of a normal, recurring nature) considered necessary for a fair presentation have been included. Operating results for the three and six months ended June 30, 2021 are not necessarily indicative of the results that may be expected for the year ending December 31, 2021. These Condensed Consolidated Financial Statements should be read in conjunction with the Consolidated Financial Statements and Notes included in CryoLife's Annual Report on Form 10-K for the year ended December 31, 2020 filed with the SEC on February 22, 2021.

***Significant Accounting Policies***

A summary of our significant accounting policies is included in Note 1 of the "Notes to Consolidated Financial Statements" contained in our Form 10-K for the year ended December 31, 2020. Management believes that the consistent application of these policies enables us to provide users of the financial statements with useful and reliable information about our operating results and financial condition. The Condensed Consolidated Financial Statements are prepared in accordance with accounting principles generally accepted in the U.S., which require us to make estimates and assumptions. We did not experience any significant changes during the three and six months ended June 30, 2021 in any of our Significant Accounting Policies from those contained in our Form 10-K for the year ended December 31, 2020.

***New Accounting Standards***

*Recently Adopted*

In August 2020 the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") ASC Update No. 2020-06, *Debt - Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40)* ("ASU 2020-06"). The update simplifies the accounting for convertible instruments by eliminating two accounting models (i.e., the cash conversion model and beneficial conversion feature model) and reducing the number of embedded conversion features that could be recognized separately from the host contract. ASU 2020-06 also enhances transparency and improves disclosures for convertible instruments and earnings per share guidance. On January 1, 2021, we adopted ASU 2020-06 using the modified retrospective approach and recorded $20.4 million to increase long-term debt, $3.2 million to reduce retained earnings, and $16.4 million to reduce additional paid-in capital included on the Condensed Consolidated Balance Sheets. See Note 10 for further discussion of convertible debt.

In December 2019 the FASB issued ASC Update No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12"). The amendments in this ASU simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. The amendments are effective for public entities in fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. We adopted ASU 2019-12 on January 1, 2021 and the adoption did not have a material impact on our financial condition or results of operation.

*Not Yet Effective*

In March 2020, the FASB issued ASU 2020-04, *Reference Rate Reform Topic 848* ("ASC 848"). The amendments in this ASU were put forth in response to the market transition from the LIBOR and other interbank offered rates to alternative reference rates. U.S. GAAP requires entities to evaluate whether a contract modification, such as the replacement or change of a reference rate, results in the establishment of a new contract or continuation of an existing contract. ASC 848 allows an entity to elect not to apply certain modification accounting requirements to contracts affected by reference rate reform. The standard provides this temporary election through December 31, 2022, and cannot be applied to contract modifications that occur after December 31, 2022. We are in the process of evaluating the effect that the adoption of this standard will have on our financial position and results of operations.

**2. Acquisition of Ascyrus**

***Overview***

On September 2, 2020 we entered into a Securities Purchase Agreement (the "Ascyrus Agreement") to acquire 100% of the outstanding equity interests of Ascyrus Medical LLC ("Ascyrus"). Ascyrus developed the Ascyrus Medical Dissection Stent ("AMDS") hybrid prosthesis, the world's first aortic arch remodeling device for use in the treatment of acute Type A aortic dissections.

Under the terms of the Ascyrus Agreement, we will pay an aggregate of up to $200.0 million in consideration, consisting of: (i) a cash payment of approximately $60.0 million and the issuance of $20.0 million in shares of CryoLife common stock, in each case, that were delivered at the closing of the acquisition, (ii) if the U.S. Food and Drug Administration (the "FDA") approves an Investigational Device Exemption ("IDE") application for the AMDS, a cash payment of $10.0 million and the issuance of $10.0 million in shares of CryoLife common stock, (iii) if the FDA approves a Premarket Approval ("PMA") application submitted for the AMDS, a cash payment of $25.0 million, (iv) if regulatory approval of the AMDS is obtained in Japan on or before June 30, 2027, a cash payment of $10.0 million, (v) if regulatory approval of the AMDS is obtained in China on or before June 30, 2027, a cash payment of $10.0 million and (vi) a potential additional consideration cash payment capped at $55.0 million (or up to $65.0 million to $75.0 million if the Japanese or Chinese approvals are not secured on or before June 30, 2027 and those approval milestone payments are added to the potential additional consideration cash payment cap) calculated as two times the incremental worldwide sales of the AMDS (or any other acquired technology or derivatives of such acquired technology) outside of the European Union during the three-year period following the date the FDA approves a Premarket Approval application submitted for the AMDS.

***Accounting for the Transaction***

Upon closing of the acquisition on September 2, 2020, we paid $82.4 million consisting of $62.4 million in cash consideration, and $20.0 million in shares of CryoLife common stock. The number of shares issued was based on a 10-day moving volume weighted average closing price of a share of CryoLife common stock as of the date immediately prior to closing, resulting in an issuance of 991,800 shares of CryoLife common stock.

As part of the acquisition, we may be required to pay additional consideration in cash and equity up to $120.0 million to the former shareholders of Ascyrus upon the achievement of certain milestones and the sales-based additional earnout described above. The fair value of the total potential purchase consideration of $200.0 million was calculated to be $137.8 million, which includes total purchase consideration, as well as the contingent consideration liability discussed below. Our preliminary allocation of the purchase consideration was allocated to Ascyrus's tangible and identifiable intangible assets acquired and liabilities assumed, based on their estimated fair values as of September 2, 2020.

We recorded the contingent consideration liability of $17.3 million and $16.4 million in Current liabilities and $46.9 million and $43.5 million in Other long-term liabilities as of June 30, 2021 and December 31, 2020, respectively, in the Condensed Consolidated Balance Sheets, representing the estimated fair value of future potential payments. The fair value of the contingent consideration liability was estimated by discounting to present value the contingent payments expected to be made based on a probability-weighted scenario approach. We applied a discount rate based on our unsecured credit spread and the term commensurate risk-free rate to the additional consideration to be paid, and then applied a risk-based estimate of the probability of achieving each scenario to calculate the fair value of the contingent consideration. This fair value measurement was based on unobservable inputs, including management estimates and assumptions about the future achievement of milestones and future estimate of revenues, and is, therefore, classified as Level 3 within the fair value

hierarchy presented in Note 4. We will remeasure this liability at each reporting date and will record changes in the fair value of the contingent consideration in General, administrative, and marketing expenses on the Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). Increases or decreases in the fair value of the contingent consideration liability can result from changes in passage of time, discount rates, the timing and amount of our revenue estimates, and the timing and expectation of regulatory approvals.

We performed an assessment of the fair value of the contingent consideration and recorded a $3.3 million and $4.3 million fair value adjustment for the three and six months ended June 30, 2021, respectively, in General, administrative, and marketing expenses on the Condensed Consolidated Statements of Operations and Comprehensive Income (Loss), as a result of this assessment.

We recorded $62.5 million of preliminary goodwill, of which $61.2 million was deductible for tax purposes, based on the amount by which the total purchase consideration price exceeded the fair value of the net assets acquired and liabilities assumed. Goodwill from this transaction primarily relates to synergies expected from the acquisition and has been allocated to our Medical devices segment. The estimated allocation of assets acquired and liabilities assumed is based on the information available that would have been known as of the acquisition date. We are completing our procedures related to the purchase price allocation and if information regarding these values is received that would result in a material adjustment to the values recorded, we will recognize the adjustment, which may include the recognition of additional expenses or other allocation adjustments, in the period this determination is made. During the six months ended June 30, 2021 we received a $777,000 cash distribution from escrow related to the working capital adjustments which reduced the purchase price consideration and goodwill. This adjustment was included in other cash flows used in investing activities on the Condensed Consolidated Statements of Cash Flows for the six months ended June 30, 2021.

The September 2, 2020 allocation of preliminary purchase consideration adjusted as of June 30, 2021 consisted of the following (in thousands):

| | | |
|---|---|---|
| **Consideration** | | |
| Cash paid for acquisition | $ | 62,359 |
| Common stock issued | | 20,000 |
| Contingent consideration | | 55,407 |
| **Fair value of total consideration** | **$** | **137,766** |
| | | |
| **Purchase Price Allocation** | | |
| Cash and cash equivalents | $ | 4,017 |
| Intangible assets | | 72,600 |
| Net other assets/liabilities acquired | | (1,366) |
| Goodwill | | 62,515 |
| **Net assets acquired** | **$** | **137,766** |

Pro forma financial information related to the Ascyrus Agreement has not been provided as it is not material to our consolidated results of operations. The results of operations of the Ascyrus acquisition are included in results of operations from the date of acquisition and were not significant for the three and six months ended June 30, 2021. The results of operations of the Ascyrus acquisition are included in our Medical devices segment.

### 3. Agreements with Endospan

***Exclusive Distribution Agreement and Securities Purchase Option Agreement***

On September 11, 2019 CryoLife, Inc.'s wholly-owned subsidiary, JOTEC GmbH, ("JOTEC"), entered into an exclusive distribution agreement ("Endospan Distribution Agreement") with Endospan Ltd. ("Endospan"), an Israeli corporation, pursuant to which JOTEC obtained exclusive distribution rights for Endospan's NEXUS ™ stent graft system ("NEXUS") and accessories in certain countries in Europe in exchange for a fixed distribution fee of $9.0 million paid in September 2019.

CryoLife also entered into a securities purchase option agreement ("Endospan Option Agreement") with Endospan for $1.0 million paid in September 2019. The Endospan Option Agreement provides CryoLife the option to purchase all the

outstanding securities of Endospan from Endospan's securityholders at the time of acquisition, or the option to acquire all of Endospan's assets, in each case, for a price between $350.0 and $450.0 million before, within a certain period of time, or after FDA approval of NEXUS, with such option expiring if not exercised within 90 days after receiving notice that Endospan has received approval from the FDA for NEXUS.

***Loan Agreement***

CryoLife and Endospan also entered into a loan agreement ("Endospan Loan"), dated September 11, 2019, in which CryoLife agreed to provide Endospan a secured loan of up to $15.0 million to be funded in three tranches of $5.0 million each.

The first tranche of the Endospan Loan was funded upon execution of the agreement in September 2019. During September 2020 we funded the second tranche payment of $5.0 million upon the certification of the NEXUS IDE from the FDA. The third tranche is required to be funded upon certification of enrollment of at least 50% of the required number of patients in the primary arm of the FDA approved clinical trial for NEXUS, in each case subject to Endospan's continued compliance with the Endospan Loan and certain other conditions. If a termination fee becomes payable by Endospan under the Endospan Distribution Agreement, it will be added to the amount payable to CryoLife under the Endospan Loan.

***Variable Interest Entity***

We consolidate the results of a variable interest entity ("VIE") when it is determined that we are the primary beneficiary. Based on our initial evaluation of Endospan and the related agreements with Endospan, we determined that Endospan is a VIE. Although the arrangement with Endospan resulted in our holding a variable interest, it did not empower us to direct those activities of Endospan that most significantly impact the VIE economic performance. Therefore, we are not the primary beneficiary, and we have not consolidated Endospan into our financial results. Our payments to Endospan in September 2019 totaled $15.0 million which included a $9.0 million distribution fee, a $1.0 million securities purchase option, and $5.0 million for the first tranche of the Endospan Loan. We paid an additional $5.0 million for the second tranche described above. We evaluated Endospan for VIE classification as of June 30, 2021 and December 31, 2020 and determined that Endospan meets the criteria of a non-consolidating VIE. Our payments to date, including any loans, guarantees, and other subordinated financial support related to this VIE, totaled $20.0 million as of June 30, 2021, representing our maximum exposure to loss, and were not individually significant to our consolidated financial statements.

***Valuation***

The agreements with Endospan were entered into concurrently and had certain terms that are interrelated. In our evaluation of the initial relative fair value of each of the Endospan agreements to determine the amount to record, we utilized discounted cash flows to estimate the fair market value for the Endospan Loan and for the Endospan Distribution Agreement. We estimated the fair value of the Endospan Option Agreement utilizing the Monte Carlo simulation. The fair value measurement was based on unobservable inputs, including management estimates and assumptions about the future achievement of milestones and future estimate of revenues, and is, therefore, classified as Level 3 within the fair value hierarchy as presented in Note 4. Inputs in our valuation of the Endospan agreements included cash payments and anticipated payments based on the executed agreements with Endospan, projected discounted cash flows in connection with the Endospan transaction, our expected internal rate of return and discount rates, and our assessed probability and timing of receipt of certification of certain approvals and milestones in obtaining FDA approval. Based on the initial fair value of the Endospan Loan and the relative fair values of the Endospan Distribution Agreement and Endospan Option Agreement, we recorded the Endospan Loan value of $358,000 in Other long-term assets in the Condensed Consolidated Balance Sheets as of December 31, 2019. The Endospan Option Agreement was valued at $4.8 million in Other long-term assets in the Condensed Consolidated Balance Sheets as of June 30, 2021 and December 31, 2020. The Endospan Distribution Agreement was recorded at $6.8 million and $8.0 million in Other intangibles, net in the Condensed Consolidated Balance Sheets as of June 30, 2021 and December 31, 2020, respectively.

We elected the fair value option for recording the Endospan Loan. We assess the fair value of the Endospan Loan based on quantitative and qualitative characteristics, and adjust the amount recorded to its current fair market value at each reporting period. The fair value of the Endospan Loan was $409,000 as of June 30, 2021 and December 31, 2020.

**4. Financial Instruments**

The following is a summary of our financial instruments measured at fair value on a recurring basis (in thousands):

| **June 30, 2021** | **Level 1** | **Level 2** | **Level 3** | **Total** |
|---|---|---|---|---|
| Cash equivalents: | | | | |
| Money market funds | $ 10,005 | $ -- | $ -- | $ 10,005 |
| Restricted securities: | | | | |
| Money market funds | 554 | -- | -- | 554 |
| Endospan loan | -- | -- | 409 | 409 |
| **Total assets** | **$ 10,559** | **$ --** | **$ 409** | **$ 10,968** |
| | | | | |
| Current liabilities: | | | | |
| Contingent consideration | -- | -- | (17,300) | (17,300) |
| | | | | |
| Long-term liabilities: | | | | |
| Contingent consideration | -- | -- | (46,900) | (46,900) |
| **Total liabilities** | **$ --** | **$ --** | **$ (64,200)** | **$ (64,200)** |

| **December 31, 2020** | **Level 1** | **Level 2** | **Level 3** | **Total** |
|---|---|---|---|---|
| Cash equivalents: | | | | |
| Money market funds | $ 11,484 | $ -- | $ -- | $ 11,484 |
| Restricted securities: | | | | |
| Money market funds | 546 | -- | -- | 546 |
| Endospan loan | -- | -- | 409 | 409 |
| **Total assets** | **$ 12,030** | **$ --** | **$ 409** | **$ 12,439** |
| | | | | |
| Current liabilities: | | | | |
| Contingent consideration | -- | -- | (16,430) | (16,430) |
| | | | | |
| Long-term liabilities: | | | | |
| Contingent consideration | -- | -- | (43,500) | (43,500) |
| **Total liabilities** | **$ --** | **$ --** | **$ (59,930)** | **$ (59,930)** |

We used prices quoted from our investment advisors to determine the Level 1 valuation of our investments in money market funds. We recorded the Endospan Loan, classified as Level 3, as a result of an agreement with Endospan in September 2019. The fair value of the contingent consideration component of the Ascyrus acquisition was updated using Level 3 inputs. See Note 2 and Note 3 for further discussion of the Ascyrus acquisition and the Endospan Loan, respectively. Changes in fair value of Level 3 assets and liabilities are listed in the tables below (in thousands):

| | **Endospan Loan** | | **Contingent Consideration** |
|---|---|---|---|
| Balance as of December 31, 2020 | $ 409 | Balance as of December 31, 2020 | $ (59,930) |
| Change in valuation | -- | Change in valuation | (4,270) |
| Balance as of June 30, 2021 | $ **409** | Balance as of June 30, 2021 | $ **(64,200)** |

**5. Cash Equivalents and Restricted Securities**

The following is a summary of cash equivalents and restricted securities (in thousands):

| June 30, 2021 | Cost Basis | Unrealized Holding Gains | Estimated Market Value |
|---|---|---|---|
| Cash equivalents: | | | |
| Money market funds | $ 10,005 | $ -- | $ 10,005 |
| Restricted securities: | | | |
| Money market funds | 554 | -- | 554 |
| **Total assets** | $ 10,559 | $ -- | $ 10,559 |

| December 31, 2020 | Cost Basis | Unrealized Holding Gains | Estimated Market Value |
|---|---|---|---|
| Cash equivalents: | | | |
| Money market funds | $ 11,484 | $ -- | $ 11,484 |
| Restricted securities: | | | |
| Money market funds | 546 | -- | 546 |
| **Total assets** | $ 12,030 | $ -- | $ 12,030 |

As of June 30, 2021 and December 31, 2020 $554,000 and $546,000, respectively, of our money market funds were designated as short-term restricted securities due to a contractual commitment to hold the securities as pledged collateral relating to international tax obligations.

There were no gross realized gains or losses on cash equivalents and restricted securities in the three and six months ended June 30, 2021 and 2020. As of June 30, 2021 $554,000 of our restricted securities had a maturity date within three months. As of December 31, 2020 $546,000 of our restricted securities had a maturity date within three months.

**6. Inventories, net and Deferred Preservation Costs**

Inventories at June 30, 2021 and December 31, 2020 were comprised of the following (in thousands):

| | June 30, 2021 | December 31, 2020 |
|---|---|---|
| Raw materials and supplies | $ 33,105 | $ 33,625 |
| Work-in-process | 12,250 | 6,318 |
| Finished goods | 31,007 | 33,095 |
| **Total inventories, net** | **$ 76,362** | **$ 73,038** |

Total deferred preservation costs were $41.3 million and $36.5 million as of June 30, 2021 and December 31, 2020, respectively.

To facilitate product usage, we maintain consignment inventory of our On-X heart valves at domestic hospital locations and On-X heart valves, JOTEC, and AMDS products at international hospital locations. We retain title and control over this consignment inventory until the device is implanted, at which time we invoice the hospital and recognize revenue. As of June 30, 2021 we had $13.2 million in consignment inventory, with approximately 44% in domestic locations and 56% in international locations. As of December 31, 2020 we had $11.9 million in consignment inventory, with approximately 47% in domestic locations and 53% in international locations.

## 7. Goodwill and Other Intangible Assets

### *Indefinite Lived Intangible Assets*

As of June 30, 2021 and December 31, 2020 the carrying values of our indefinite lived intangible assets were as follows (in thousands):

| | June 30, 2021 | December 31, 2020 |
|---|---|---|
| Goodwill | $ 255,484 | $ 260,061 |
| In-process R&D | 2,317 | 2,392 |
| Procurement contracts and agreements | 2,013 | 2,013 |
| Trademarks | 765 | 765 |

We monitor the phases of development of our acquired in-process research and development projects, including the risks associated with further development and the amount and timing of benefits expected to be derived from the completed projects. Incremental costs associated with development are charged to expense as incurred. Capitalized costs are amortized over the estimated useful life of the developed asset once completed. Our in-process research and development projects are reviewed for impairment annually, or more frequently, if events or changes in circumstances indicate that the asset might be impaired.

Based on our experience with similar agreements, we believe that our acquired procurement contracts and agreements have indefinite useful lives, as we expect to continue to renew these contracts for the foreseeable future. We believe that our trademarks have indefinite useful lives as we currently anticipate that our trademarks will contribute to our cash flows indefinitely.

We evaluate our goodwill and non-amortizing intangible assets for impairment on an annual basis during the fourth quarter of the year, and, if necessary, during interim periods if factors indicate that an impairment review is warranted. As of June 30, 2021 we concluded that our assessment of current factors did not indicate that goodwill or non-amortizing intangible assets are more likely than not to be impaired. We will continue to evaluate the recoverability of these non-amortizing intangible assets in future periods as necessary.

As of June 30, 2021 and December 31, 2020 our entire goodwill balance was related to our Medical devices segment.

| | Medical Devices Segment |
|---|---|
| Balance as of December 31, 2020 | $ 260,061 |
| Ascyrus acquisition | (843) |
| Revaluation of goodwill denominated in foreign currency | (3,734) |
| **Balance as of June 30, 2021** | **$ 255,484** |

***Definite Lived Intangible Assets***

The definite lived intangible balance includes balances related to acquired technology, customer relationships, distribution and manufacturing rights and know-how, patents, and other definite lived intangible assets. As of June 30, 2021 and December 31, 2020 the gross carrying values, accumulated amortization, and approximate amortization period of our definite lived intangible assets were as follows (in thousands):

| June 30, 2021 | Gross Carrying Value | Accumulated Amortization | Amortization Period |
|---|---|---|---|
| Acquired technology | $ 218,678 | $ 41,655 | 11 – 22 Years |
| Customer lists and relationships | 31,246 | 8,880 | 13 – 22 Years |
| Distribution and manufacturing rights and know-how | 14,392 | 6,378 | 5 – 15 Years |
| Patents | 4,037 | 3,127 | 17 Years |
| Other | 3,854 | 1,422 | 4 – 5 Years |

| December 31, 2020 | Gross Carrying Value | Accumulated Amortization | Amortization Period |
|---|---|---|---|
| Acquired technology | $ 222,182 | $ 36,091 | 11 – 22 Years |
| Customer lists and relationships | 31,316 | 8,132 | 13 – 22 Years |
| Distribution and manufacturing rights and know-how | 14,728 | 5,349 | 5 – 15 Years |
| Patents | 3,966 | 3,113 | 17 Years |
| Other | 3,453 | 1,073 | 4 – 5 Years |

***Amortization Expense***

The following is a summary of amortization expense as recorded in General, administrative, and marketing expenses on our Condensed Consolidated Statement of Operations and Comprehensive Income (Loss) (in thousands):

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Amortization expense | $ 4,238 | $ 3,000 | $ 8,498 | $ 6,033 |

As of June 30, 2021 scheduled amortization of intangible assets for the next five years is as follows (in thousands):

| | Remainder of 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | Total |
|---|---|---|---|---|---|---|---|
| Amortization expense | $ 8,489 | 16,433 | 15,928 | 15,560 | 13,401 | 12,941 | $ 82,752 |

**8. Income Taxes**

***Income Tax Expense***

Our effective income tax rate was a benefit of under 1% and 20% for the three and six months ended June 30, 2021, respectively, as compared to a benefit of 23% and 20% for the three and six months ended June 30, 2020, respectively. The change in the tax rate for the three and six months ended June 30, 2021 is primarily due to a change in pre-tax book loss, an increase in the excess tax benefit related to stock compensation, as well as an increase in the estimated current year valuation allowance, as compared to the three and six months ended June 30, 2020.

The income tax rate for the three and six months ended June 30, 2021 was favorably impacted by excess tax benefit deductions related to stock compensation, the research and development tax credit, and the reduction of a valuation allowance on prior year items. The tax rate was unfavorably impacted by non-deductible operating expenses, executive compensation expenses, an increase in the valuation allowance on current year items, and the recording of a tax reserve on prior year items.

The income tax rate for the three and six months ended June 30, 2020 was favorably impacted by excess tax benefit deductions related to stock compensation and the research and development tax credit. These factors were partially offset by the unfavorable impacts of non-deductible operating expenses and executive compensation expenses.

***Deferred Income Taxes***

We generate deferred tax assets primarily as a result of the difference in fixed asset depreciation lives for book and tax purposes, accruals for which the timing of deductibility is different for book and tax purposes, the timing of tax deductions related to stock compensation, interest expense disallowances, and operating losses. We believe our utilization of net operating losses from previous transactions will not have a material impact on income taxes for the 2021 tax year.

As of June 30, 2021 we maintained a total of $11.5 million in valuation allowances against deferred tax assets, including state and federal net operating loss carryforwards and interest expense disallowance carryforwards, and a net deferred tax liability of $27.9 million. As of December 31, 2020 we maintained a total of $7.2 million in valuation allowances against deferred tax assets, including state and federal net operating loss carryforwards, and a net deferred tax liability of $33.3 million.

During the three months ended March 31, 2021, we released a valuation allowance and increased a tax reserve in the amount of a net $1.8 million related to an immaterial prior period correction of errors in the calculation of the valuation allowance and an uncertain tax position. The valuation allowance adjustment, which comprises the majority of the adjustment, primarily arises from the improper reversal in the prior period valuation allowance assessment of future temporary differences created from the accounting of its convertible debt. On correcting the errors, we recorded an income tax benefit of $1.8 million.

***The Coronavirus Aid, Relief and Economic Security Act ("CARES Act")***

In response to the novel coronavirus disease ("COVID-19") pandemic, the U.S. government enacted the CARES Act on March 27, 2020. The CARES Act provided various forms of relief and assistance to U.S. businesses. We recorded a reduction to income taxes payable and deferred tax assets of approximately $1.3 million for the change to the 2019 Section 163(j) interest expense deduction limitation for the three months ended March 2020.

**9. Leases**

We have operating and finance lease obligations resulting from the lease of land and buildings that comprise our corporate headquarters and various manufacturing facilities; leases related to additional manufacturing, office, and warehouse space; leases on Company vehicles; and leases on a variety of office and other equipment.

On January 6, 2021 we executed a modification to extend the lease of our headquarters located in Kennesaw, Georgia. This modification resulted in an increase in the present value of future lease obligations and corresponding right-of-use asset of $23.3 million, using a discount rate of 6.41%.

On June 1, 2021 we began occupancy of the newly constructed addition to our leased JOTEC headquarters located in Hechingen, Germany. This lease resulted in an increase in the present value of future lease obligations and corresponding right-of-use asset of $9.8 million, using a discount rate of 5.46%.

Information related to leases included in the Condensed Consolidated Balance Sheets is as follows (in thousands, except lease term and discount rate):

| **Operating leases:** | **June 30, 2021** | **December 31, 2020** |
|---|---|---|
| Operating lease right-of-use assets | $ 59,042 | $ 28,242 |
| Accumulated amortization | (10,683) | (9,671) |
| **Operating lease right-of-use assets, net** | **$ 48,359** | **$ 18,571** |
| | | |
| Current maturities of operating leases | $ 2,473 | $ 5,763 |
| Non-current maturities of operating lease | 47,440 | 14,034 |
| **Total operating lease liabilities** | $ **49,913** | $ **19,797** |
| | | |
| **Finance leases:** | | |
| Property and equipment, at cost | $ 7,305 | $ 7,620 |
| Accumulated amortization | (2,074) | (1,905) |
| **Property and equipment, net** | **$ 5,231** | **$ 5,715** |
| | | |
| Current maturities of finance leases | $ 564 | $ 614 |
| Non-current maturities of finance leases | 4,860 | 5,300 |
| **Total finance lease liabilities** | $ **5,424** | $ **5,914** |
| | | |
| **Weighted average remaining lease term (in years):** | | |
| Operating leases | 13.0 | 5.1 |
| Finance leases | 9.3 | 9.8 |
| | | |
| **Weighted average discount rate:** | | |
| Operating leases | 5.8% | 5.2% |
| Finance leases | 2.0% | 2.0% |

Current maturities of finance leases are included as a component of Other current liabilities and non-current maturities of finance leases are included as a component of Other long-term liabilities on our Condensed Consolidated Balance Sheets. A summary of lease expenses for our finance and operating leases included in General, administrative, and marketing expenses on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss) are as follows (in thousands):

| | **Three Months Ended June 30,** | | **Six Months Ended June 30,** | |
|---|---|---|---|---|
| | **2021** | **2020** | **2021** | **2020** |
| Amortization of property and equipment | $ 155 | $ 161 | $ 310 | $ 323 |
| Interest expense on finance leases | 28 | 29 | 57 | 58 |
| **Total finance lease expense** | **183** | **190** | **367** | **381** |
| Operating lease expense | 1,809 | 1,769 | 3,575 | 3,518 |
| Sublease income | (92) | (226) | (216) | (452) |
| **Total lease expense** | **$ 1,900** | **$ 1,733** | **$ 3,726** | **$ 3,447** |

A summary of our cash flow information related to leases is as follows (in thousands):

| Cash paid for amounts included in the measurement of lease liabilities: | **Six Months Ended June 30, 2021** | **Six Months Ended June 30, 2020** |
|---|---|---|
| Operating cash flows for operating leases | $ 2,957 | $ 3,556 |
| Financing cash flows for finance leases | 306 | 300 |
| Operating cash flows for finance leases | 57 | 59 |

Future minimum lease payments and sublease rental income are as follows (in thousands):

| | Finance Leases | Operating Leases | Sublease Income |
|---|---|---|---|
| Remainder of 2021 | $ 316 | $ 1,989 | $ 183 |
| 2022 | 656 | 6,294 | 306 |
| 2023 | 655 | 6,592 | -- |
| 2024 | 649 | 6,227 | -- |
| 2025 | 629 | 5,329 | -- |
| Thereafter | 3,040 | 46,902 | -- |
| **Total minimum lease payments** | **$ 5,945** | **$ 73,333** | **$ 489** |
| Less amount representing interest | (521) | (23,420) | |
| Present value of net minimum lease payments | 5,424 | 49,913 | |
| Less current maturities | (564) | (2,473) | |
| **Lease liabilities, less current maturities** | **$ 4,860** | **$ 47,440** | |

**10. Debt**

***Credit Agreement***

On December 1, 2017 we entered into a credit and guaranty agreement for a $255.0 million senior secured credit facility, consisting of a $225.0 million secured term loan facility (the "Term Loan Facility") and a $30.0 million secured revolving credit facility ("the Revolving Credit Facility" and, together with the Term Loan Facility, the "Credit Agreement"). We and each of our existing domestic subsidiaries (subject to certain exceptions and exclusions) guarantee the obligations under the Credit Agreement (the "Guarantors"). The Credit Agreement is secured by a security interest in substantially all existing and after-acquired real and personal property (subject to certain exceptions and exclusions) of us and the Guarantors.

On June 2, 2021 we entered into an amendment to our Credit Agreement to extend the maturity dates of both the Company's Term Loan and its Revolving Credit Facility. As part of the amendment, the maturity dates of both the Company's Term Loan and its Revolving Credit Facility are each extended by two and one-half years, until June 1, 2027 and June 1, 2025, respectively, subject to earlier springing maturities if our 4.25% Convertible Senior Notes, described below, remain outstanding on April 1, 2025 and December 31, 2024, respectively. With respect to the Term Loan, if the Convertible Senior Notes remain outstanding on April 1, 2025, the Term Loan's maturity date will be April 1, 2025, or, if the Convertible Senior Notes' own maturity date has been extended, the earlier of (i) 91 days prior to the Convertible Senior Notes' new maturity date and (ii) June 1, 2027. In the case of the Revolving Credit Facility, if the Convertible Senior Notes are still outstanding on December 31, 2024, the Revolving Credit Facility's maturity date will be either December 31, 2024 or, if the Convertible Senior Notes' own maturity date has been extended, the earlier of (i) 182 days prior to the Convertible Senior Notes' new maturity date and (ii) June 1, 2025. Under the amendment, the Term Loan Facility bears interest, at our option, at a floating annual rate equal to either the base rate, plus a margin of 2.50%, or LIBOR, plus a margin of 3.50%. Prior to the amendment, the optional floating annual rate was equal to either the base rate plus a margin of 2.25%, or LIBOR, plus a margin of 3.25%. We paid debt issuance costs of $2.1 million, of which $1.8 million will be amortized over the life of the term loan facility and included in current and long-term debt on the Condensed Consolidated Balance Sheets. The remaining $361,000 of debt issuance costs and $474,000 of non-cash debt extinguishment costs were recorded in Interest expense on the Condensed Consolidated Statements of Operations and Comprehensive Income (Loss).

As discussed in our Annual Report on Form 10-K for the year ended December 31, 2020, the Credit Agreement contains certain customary affirmative and negative covenants, including covenants that limit our ability and the ability of our subsidiaries to, among other things, grant liens, incur debt, dispose of assets, make loans and investments, make acquisitions, make certain restricted payments (including cash dividends), merge or consolidate, change business or accounting or reporting practices, in each case subject to customary exceptions for a credit facility of this size and type. Beginning in 2021, if we repay borrowings under our Revolving Credit Facility to 25% or less, no financial maintenance covenants, including the minimum liquidity covenant and the maximum first lien net leverage ratio covenant, are applicable. We are in compliance with our debt covenants as of June 30, 2021.

***Convertible Senior Notes***

On June 18, 2020 we issued $100.0 million aggregate principal amount of 4.25% Convertible Senior Notes with a maturity date of July 1, 2025 (the "Convertible Senior Notes"). The net proceeds from this offering, after deducting initial

purchasers' discounts and costs directly related to this offering, were approximately $96.5 million. On January 1, 2021 we adopted ASU 2020-06 and adjusted the carrying balance of the Convertible Senior Notes to notional. The Convertible Senior Notes balance was $100.0 million recorded in Long-term debt on the Condensed Consolidated Balance Sheets as of June 30, 2021. The Convertible Senior Notes may be settled in cash, stock, or a combination thereof, solely at our discretion. The initial conversion rate of the Convertible Senior Notes is 42.6203 shares per $1,000 principal amount, which is equivalent to a conversion price of approximately $23.46 per share, subject to adjustments. We use the if-converted method for assumed conversion of the Convertible Senior Notes for the diluted earnings per share calculation. The fair value and the effective interest rate of the Convertible Senior Notes as of June 30, 2021 was approximately $144.6 million and 5.05%, respectively. The fair value was based on market prices observable for similar instruments and is considered Level 2 in the fair value hierarchy.

The interest expense recognized on the Convertible Senior Notes includes approximately $1.2 million and $2.4 million for the aggregate of the contractual coupon interest, and the amortization of the debt issuance costs as of the three and six months ended June 30, 2021, respectively. The interest expense recognized on the Convertible Senior Notes during the three and six months ended June 30, 2020, includes approximately $156,000 in aggregate for the contractual coupon interest, the accretion of the debt discount, and the amortization of the debt issuance costs. Interest on the Convertible Senior Notes began accruing upon issuance and is payable semi-annually. As of June 30, 2021 there were $2.8 million of unamortized debt issuance costs related to convertible senior notes.

Holders of the Convertible Senior Notes may convert their notes at their option at any time prior to January 1, 2025 but only under the following circumstances: (i) during any calendar quarter commencing after the calendar quarter ending on September 30, 2020 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (ii) during the five business day period after any five consecutive trading day period in which the trading price per $1,000 principal amount of notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such trading day; (iii) we give a notice of redemption with respect to any or all of the notes, at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; or (iv) upon the occurrence of specified corporate events. On or after January 1, 2025 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their notes at any time, regardless of the foregoing circumstances.

We cannot redeem the Convertible Senior Notes before July 5, 2023. We can redeem them on or after July 5, 2023, in whole or in part, at our option, if the last reported sale price per share of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption. We may redeem for cash all or part of the Convertible Senior Notes at a redemption price equal to 100% of the principal amount of the redeemable Convertible Senior Notes, plus accrued and unpaid interest to, but excluding, the redemption date. No principal payments are due on the Convertible Senior Notes prior to maturity. Other than restrictions relating to certain fundamental changes and consolidations, mergers or asset sales and customary anti-dilution adjustments, the Convertible Senior Notes do not contain any financial covenants and do not restrict us from conducting significant restructuring transactions or issuing or repurchasing any of its other securities.

***Loan Balances***

The short-term and long-term balances of our term loan and other long-term borrowings were as follows (in thousands):

| | June 30, 2021 | December 31, 2020 |
|---|---|---|
| Term loan balance | $ 217,125 | $ 218,250 |
| Convertible senior notes | 100,000 | 79,555 |
| 2.45% Sparkasse Zollernalb (KFW Loan 1) | 726 | 886 |
| 1.40% Sparkasse Zollernalb (KFW Loan 2) | 1,262 | 1,457 |
| Total loan balance | 319,113 | 300,148 |
| Less unamortized loan origination costs | (9,411) | (8,485) |
| Net borrowings | 309,702 | 291,663 |
| Less short-term loan balance | (1,652) | (1,195) |
| Long-term loan balance | $ 308,050 | $ 290,468 |

***Interest Expense***

Interest expense was $4.9 million and $8.9 million for the three and six months ended June 30, 2021, respectively, as compared to $3.7 million and $7.0 million for the three and six months ended June 30, 2020, respectively. Interest expense includes interest on debt and uncertain tax positions in both periods.

**11. Commitments and Contingencies**

***Liability Claims***

In the normal course of business, we are made aware of adverse events involving our products and tissues. Future adverse events could ultimately give rise to a lawsuit against us, and liability claims may be asserted against us in the future based on past events that we are not aware of at the present time. We maintain claims-made insurance policies to mitigate our financial exposure to product and tissue processing liability claims. Claims-made insurance policies generally cover only those asserted claims and incidents that are reported to the insurance carrier while the policy is in effect. The amounts recorded in these Condensed Consolidated Financial Statements as of June 30, 2021 represent our estimate of the probable losses and anticipated recoveries for incurred but not reported claims related to products sold and services performed prior to the balance sheet date.

***PerClot Technology***

On September 28, 2010 we entered into a worldwide distribution agreement and a license and manufacturing agreement (collectively, the "SMI Agreements") with Starch Medical, Inc. ("SMI"), for PerClot®, a polysaccharide hemostatic agent used in surgery.

The SMI Agreements included terms with the potential for us to make contingent payments to SMI of up to $1.0 million if certain U.S. regulatory and certain commercial milestones are achieved (the "SMI Contingent Liabilities").

As of June 30, 2021 we had $1.5 million in prepaid royalties, $1.6 million in intangible assets, net, and $1.3 million in property and equipment, net, on our Condensed Consolidated Balance Sheets related to the PerClot product line.

On July 28, 2021 we entered into an asset purchase agreement and other ancillary agreements related to the sale of our PerClot assets to a subsidiary of Baxter International, Inc. ("Baxter") and an agreement to terminate all of our material agreements with SMI related to PerClot (collectively the "Baxter Transaction"). As part of the Baxter Transaction, the SMI Contingent Liabilities were extinguished. See Note 16 for further discussion of the sale of PerClot assets.

**12. Revenue Recognition**

***Sources of Revenue***

We have identified the following revenues disaggregated by revenue source:

- Domestic Hospitals – direct sales of products and preservation services.
- International Hospitals – direct sales of products and preservation services.
- International Distributors – generally these contracts specify a geographic area that the distributor will service, terms and conditions of the relationship, and purchase targets for the next calendar year.
- CardioGenesis Cardiac Laser Console Trials and Sales – CardioGenesis cardiac trialed laser consoles are delivered under separate agreements.

For the three and six months ended June 30, 2021 and 2020 the sources of revenue were as follows (in thousands):

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| | (Unaudited) | | (Unaudited) | |
| Domestic hospitals | $ 38,932 | $ 30,228 | $ 75,161 | $ 66,564 |
| International hospitals | 27,638 | 16,135 | 53,765 | 35,872 |
| International distributors | 9,504 | 7,244 | 18,146 | 17,489 |
| CardioGenesis cardiac laser therapy | 74 | 164 | 163 | 275 |
| **Total sources of revenue** | **$ 76,148** | **$ 53,771** | **$ 147,235** | **$ 120,200** |

Also see segment disaggregation information in Note 15 below.

***Contract Balances***

We may generate contract assets during the pre-delivery design and manufacturing stage of E-xtra DESIGN ENGINEERING product order fulfillment. We assess the balance related to any arrangements in process and determine if the enforceable right to payment creates a material contract asset requiring disclosure. No material arrangements in process existed as of June 30, 2021 and 2020.

We also incur contract obligations on general customer purchase orders that have been accepted but unfulfilled. Due to the short duration of time between order acceptance and delivery of the related product or service, we have determined that the balance related to these contract obligations is generally immaterial at any point in time. We monitor the value of orders accepted but unfulfilled at the close of each reporting period to determine if disclosure is appropriate. The value of orders accepted but unfulfilled as of June 30, 2021 and 2020 was not material.

**13. Stock Compensation**

***Overview***

We have stock option and stock incentive plans for employees and non-employee Directors that provide for grants of restricted stock awards (“RSAs”), restricted stock units (“RSUs”), performance stock units (“PSUs”), and options to purchase shares of our common stock at exercise prices generally equal to the fair value of such stock at the dates of grant. We also maintain a shareholder-approved Employee Stock Purchase Plan (the “ESPP”) for the benefit of our employees. The ESPP allows eligible employees to purchase common stock on a regular basis at the lower of 85% of the market price at the beginning or end of each offering period.

***Equity Grants***

During the six months ended June 30, 2021 the Compensation Committee of our Board of Directors (the “Committee”) authorized awards from approved stock incentive plans of RSUs to certain employees and RSAs and PSUs to certain Company officers, which, assuming that performance under the PSUs were to be achieved at target levels, together totaled 487,000 shares and had an aggregate grant date market value of $12.3 million.

During the six months ended June 30, 2020 the Committee authorized awards from approved stock incentive plans of RSUs to certain employees and RSAs and PSUs to certain Company officers, which, assuming that performance under the PSUs were to be achieved at target levels, together totaled 312,000 shares and had an aggregate grant date market value of $7.9 million. The PSUs granted in 2020 represent the right to receive from 60% to 150% of the target number of shares of common stock. In February 2021, the Committee used structured discretion to determine that the 2020 PSUs were earned and should be paid out at 100% of target resulting in a modification of the award which resulted in $1.1 million of compensation expense during the six months ended June 30, 2021 related to these performance awards.

The Committee authorized, from approved stock incentive plans, grants of stock options to purchase a total of 226,000 and 212,000 shares to certain Company officers during the six months ended June 30, 2021 and 2020, respectively. The exercise prices of the options were equal to the closing stock prices on their respective grant dates.

Employees purchased common stock totaling 37,000 and 30,000 shares in the six months ended June 30, 2021 and 2020, respectively, through the ESPP.

***Stock Compensation Expense***

The following weighted-average assumptions were used to determine the fair value of options and shares purchased under the ESPP:

| | Three Months Ended June 30, 2021 | | Six Months Ended June 30, 2021 | |
|---|---|---|---|---|
| | Stock Options | ESPP | Stock Options | ESPP |
| Expected life | N/A | 0.5 Years | 5.0 Years | 0.5 Years |
| Expected stock price volatility | N/A | 0.46 | 0.40 | 0.46 |
| Risk-free interest rate | N/A | 0.09% | 0.57% | 0.09% |

The following table summarizes total stock compensation expenses prior to the capitalization of amounts into Deferred preservation and Inventory costs (in thousands):

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| RSA, RSU, and PSU expense | $ 1,695 | $ 2,049 | $ 3,745 | $ 4,205 |
| Stock option and ESPP expense | 572 | 632 | 1,159 | 1,165 |
| **Total stock compensation expense** | **$ 2,267** | **$ 2,681** | **$ 4,904** | **$ 5,370** |

Included in the total stock compensation expense, as applicable in each period, were expenses related to RSAs, RSUs, PSUs, and stock options issued in each respective year, as well as those issued in prior periods that continue to vest during the period, and compensation related to the ESPP. These amounts were recorded as stock compensation expense and were subject to our normal allocation of expenses to inventory costs and deferred preservation costs. We capitalized $152,000 and $309,000 in the three and six months ended June 30, 2021, and $171,000 and $296,000 in the three and six months ended June 30, 2020, of the stock compensation expense into our inventory costs and deferred preservation costs.

**14. Loss per Common Share**

The following table sets forth the computation of basic and diluted loss per common share (in thousands, except per share data):

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| **Basic loss per common share** | 2021 | 2020 | 2021 | 2020 |
| Net loss | $ (2,178) | $ (3,689) | $ (5,316) | $ (10,354) |
| Net loss allocated to participating securities | 14 | 24 | 36 | 73 |
| **Net loss allocated to common shareholders** | **$ (2,164)** | **$ (3,665)** | **$ (5,280)** | **$ (10,281)** |
| **Basic weighted-average common shares outstanding** | **38,943** | **37,520** | **38,841** | **37,455** |
| **Basic loss per common share** | **$ (0.06)** | **$ (0.10)** | **$ (0.14)** | **$ (0.27)** |

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| **Diluted loss per common share** | 2021 | 2020 | 2021 | 2020 |
| Net loss | $ (2,178) | $ (3,689) | $ (5,316) | $ (10,354) |
| Net loss allocated to participating securities | 14 | 24 | 36 | 73 |
| **Net loss allocated to common shareholders** | **$ (2,164)** | **$ (3,665)** | **$ (5,280)** | **$ (10,281)** |
| **Diluted weighted-average common shares outstanding** | **38,943** | **37,520** | **38,841** | **37,455** |
| **Diluted loss per common share** | **$ (0.06)** | **$ (0.10)** | **$ (0.14)** | **$ (0.27)** |

We excluded stock options from the calculation of diluted weighted-average common shares outstanding if the per share value, including the sum of (i) the exercise price of the options and (ii) the amount of the compensation cost attributed to future services and not yet recognized, was greater than the average market price of the shares because the inclusion of these stock options would be antidilutive to loss per common share. Accordingly, for the three and six months ended June 30, 2021 and 2020 all stock options and awards were excluded from the calculation of diluted weighted-average common shares outstanding as these would be antidilutive due to the net loss.

**15. Segment Information**

We have two reportable segments organized according to our products and services: Medical devices and Preservation services. The Medical devices segment includes external revenues from product sales of aortic stents and stent grafts, surgical sealants, On-X, and other product revenues. Aortic stents and stent grafts include JOTEC, AMDS, and NEXUS product revenues. Surgical sealants include BioGlue Surgical Adhesive product revenues. The Preservation Services segment includes external services revenues from the preservation of cardiac and vascular tissues. There are no intersegment revenues.

The primary measure of segment performance, as viewed by our management, is segment gross margin or net external revenues less cost of products and preservation services. We do not segregate assets by segment, therefore, asset information is excluded from the segment disclosures below.

The following table summarizes revenues, cost of products and preservation services, and gross margins for our operating segments (in thousands):

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | **2021** | **2020** | **2021** | **2020** |
| Revenues: | | | | |
| Medical devices | $ 56,076 | $ 37,268 | $ 109,421 | $ 83,688 |
| Preservation services | 20,072 | 16,503 | 37,814 | 36,512 |
| **Total revenues** | **76,148** | **53,771** | **147,235** | **120,200** |
| | | | | |
| Cost of products and preservation services: | | | | |
| Medical devices | 16,178 | 10,040 | 31,089 | 23,080 |
| Preservation services | 9,457 | 7,841 | 17,795 | 17,059 |
| **Total cost of products and preservation services** | **25,635** | **17,881** | **48,884** | **40,139** |
| | | | | |
| Gross margin: | | | | |
| Medical devices | 39,898 | 27,228 | 78,332 | 60,608 |
| Preservation services | 10,615 | 8,662 | 20,019 | 19,453 |
| **Total gross margin** | **$ 50,513** | **$ 35,890** | **$ 98,351** | **$ 80,061** |

The following table summarizes net revenues by product and service (in thousands):

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | **2021** | **2020** | **2021** | **2020** |
| Products: | | | | |
| Aortic stents and stent grafts | $ 21,064 | $ 13,174 | $ 41,269 | $ 28,642 |
| Surgical sealants | 17,864 | 12,437 | 35,692 | 29,174 |
| On-X | 14,726 | 10,116 | 27,821 | 22,318 |
| Other | 2,422 | 1,541 | 4,639 | 3,554 |
| **Total products** | **56,076** | **37,268** | **109,421** | **83,688** |
| | | | | |
| Preservation services | 20,072 | 16,503 | 37,814 | 36,512 |
| **Total revenues** | **$ 76,148** | **$ 53,771** | **$ 147,235** | **$ 120,200** |

**16. Subsequent Events**

On July 28, 2021 we entered into the Baxter Transaction. Under the terms of the Baxter Transaction, Baxter will pay an aggregate of up to $60.0 million in consideration (we will receive up to $45.0 million and SMI will receive up to $15.0 million), consisting of (i) $25.0 million at closing, of which $19.0 million was paid to us and $6.0 million was paid to SMI; (ii) up to $25.0 million upon our receipt of PMA approval from the FDA for PerClot and our transfer of the PMA to Baxter, of which $19.0 million is payable to us and $6.0 million is payable to SMI, subject to certain reductions for delay in PMA approval; and (iii) up to $10.0 million upon Baxter's achievement of certain cumulative worldwide net sales of PerClot prior to December 31, 2026 and December 31, 2027, of which up to $7.0 million is payable to us and $3.0 million is payable to SMI. In addition, at the conclusion of our manufacturing and supply services for Baxter, Baxter shall pay approximately $800,000 upon transfer of our PerClot manufacturing equipment. Under the terms of the Baxter Transaction, we will continue to be responsible for efforts and costs related to the FDA approval process at least until December 31, 2022 and will provide to Baxter certain transition and manufacturing and supply services relating to the sale of SMI PerClot outside of the US and manufacture and supply of PerClot to Baxter, post PMA approval.

As of June 30, 2021 we had approximately $5.0 million of total assets and $120,000 of total liabilities recorded on our Condensed Consolidated Balance Sheets related to the PerClot product line. Total assets as of June 30, 2021 included approximately $1.5 million in prepaid royalties, $1.6 million in intangible assets, net, $1.3 million in property and equipment, net, and $600,000 of other assets. The results of operations of the PerClot product line are included in our Medical devices segment. We are currently evaluating the impact of the Baxter Transaction on our consolidated financial position, results of operations and cash flows and expect to include relevant disclosures for the three and nine months ended September 30, 2021.

**Forward-Looking Statements**

This Form 10-Q includes “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 (the “Exchange Act”). Forward-looking statements give our expectations or forecasts of future events as of the date of this Form 10-Q. In some cases, words such as “could,” “may,” “might,” “will,” “would,” “shall,” “should,” “pro forma,” “potential,” “pending,” “intend,” “believe,” “expect,” “anticipate,” “estimate,” “plan,” “future,” “assume,” and variations of these types of words or other similar expressions identify forward-looking statements. These forward-looking statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Readers are cautioned not to place undue reliance on these forward-looking statements, which are made as of the date of this Form 10-Q.

All statements included herein, other than statements of historical facts, that address activities, events, or developments that we expect or anticipate will or may occur in the future, or that reflect our beliefs about the future and/or expectations, are forward-looking statements, including statements about the following:

- Our belief that new products, new indications, global expansion, and business development are the four growth areas that will drive our business in the future;
- The potential impact of the COVID-19 pandemic on our business operations, cash flow, business development, employees, and research and development projects, including clinical research projects;
- Our belief that our distributors may delay or reduce purchases of products in U.S. Dollars depending on the relative price of goods in their local currencies;
- Our beliefs that the use of surgical adhesives and sealants, with or without sutures and staples, in certain areas can enhance the efficacy of certain procedures through more effective and rapid wound closure;
- Our beliefs and anticipation regarding the favorable attributes and benefits of our products, the basis on which our products compete, our physician education activities, the advantages of our relationships with organ and tissue procurement organizations and tissue banks, the FDA classification of our medical devices, our compliance with applicable laws and regulations, and the advantages of our intellectual property and its significance to our segments and our business as a whole, our relations with our employees, timelines regarding product launches and regulatory activities and approvals;
- Our beliefs about potential competition and competitive products, potential adverse regulatory consequences, potential security vulnerabilities, and the associated potential adverse effects on our business;
- Our beliefs about the impact of the contaminated saline solution and the tissue processed with contaminated saline solution we identified in the fourth quarter of 2020;
- Our beliefs regarding our global expansion efforts, including the international growth opportunity that would be provided by obtaining regulatory approval for BioGlue in China;
- The dependencies affecting our ability to realize the anticipated business opportunities, growth prospects, synergies, and other benefits of the agreements with Endospan and Baxter and our acquisition of Ascyrus, and our beliefs about the costs and timelines for certain clinical trial milestones for the regulatory approvals of the NEXUS stent graft system in the U.S. and the AMDS globally;
- Our beliefs regarding the fair value of our business development activities and the estimates and assumptions about the future achievements of milestones and future revenues and cash flows related to those business development activities;
- Our beliefs about the present value and potential impairment of our intangible assets and leases;
- Our beliefs regarding the impact alternative anticoagulation therapy may have on the number of patients choosing On-X mechanical heart valves;
- Our belief that revenues for preservation services, particularly revenues for certain high-demand cardiac tissues, can vary from quarter to quarter and year to year due to a variety of factors including: quantity and type of incoming tissues, yields of tissue through the preservation process, timing of receipt of donor information, timing of the release of tissues to an implantable status, demand for certain tissue types due to the number and type of procedures being performed, and pressures from competing products or services;
- Our beliefs regarding the seasonal nature of the demand for some of our products and services and the reasons for such seasonality, if any, and regarding the impact of consignment inventory on product sales, if any;
- Our belief that our cash from operations and existing cash and cash equivalents, will enable us to meet our current operational liquidity needs for at least the next twelve months, our expectations regarding future cash requirements, and the impact that our cash requirements might have on our cash flows for the next twelve months;

- Our expectation regarding the impact on cash flows of undertaking significant business development activities and the potential need to obtain additional debt financing or equity financing;
- Our belief that we will incur expenses for research and development projects, including for clinical research projects to gain regulatory approvals for products or indications, including On-X, aortic stents and stent grafts, and BioGlue products, and for research and development for new products despite reduced planned spending due to COVID-19 and that our efforts to develop new products and technologies will likely require additional investment, research, and new clinical studies or data;
- Our beliefs about pending and potential legal or other governmental or regulatory proceedings;
- Our expectations regarding the timing of clinical research work and regulatory approvals for and expected distribution of products or indications, including On-X, aortic stents and stent grafts, and BioGlue products, and CryoValve SGPV if the FDA reclassifies allograft heart valves as Class III medical devices;
- Our beliefs and expectations regarding the utilization of net operating loss carryforwards from our acquisitions of JOTEC, On-X, Hemosphere, Inc., and Cardiogenesis Corporation;
- Our beliefs about our operating results which may fluctuate significantly on a periodic basis as a result of internal and external factors, including reduced demand for our products, availability of products, materials, and supplies, strategic actions we take such as acquisitions or divestitures, unanticipated costs and expenses, market reception of our new or improved product offerings, and interest rate and currency fluctuations; and
- Other statements regarding projections of future financial and business performance; anticipated growth and trends in our business and the markets relevant to our business, including as our growth relates to our competitors; future production capacity and product supply; the availability and benefits of our products in the future; and the expected timing and impact of our strategic initiatives.

These and other forward-looking statements reflect the views of management at the time such statements are originally made based on certain assumptions and analyses made by us in light of our experience and our perception of historical trends, current conditions, and expected future developments as well as other factors we believe are appropriate in the circumstances and are subject to a number of risks, uncertainties, estimates, and assumptions. Whether actual results and developments will conform with our expectations and predictions is subject to a number of risks and uncertainties which could cause actual results to differ materially and adversely from our expectations, including, without limitation, in addition to those specified in the text surrounding such statements, the risks described in Part II, Item 1A, “Risks Factors” in this Form 10-Q and elsewhere throughout this report, the risks described in our other filings with the Securities and Exchange Commission including the risks described under in Part I, Item 1A, “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2020 and elsewhere throughout that report, and other risks which we may not be able to identify in advance, many of which are beyond our control. Consequently, all of the forward-looking statements made in this Form 10-Q are qualified by these cautionary statements, and there can be no assurance that the actual results or developments anticipated by us will be realized or, even if substantially realized, that they will have the expected consequences to, or effects on, us or our business or operations. We assume no obligation, and expressly disclaim any duty, to update publicly any such forward-looking statements, whether as a result of new information, future events, or otherwise.

## PART I - FINANCIAL INFORMATION

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

### Overview

CryoLife, Inc. (“CryoLife,” the “Company,” “we,” or “us”) is a leader in the manufacturing, processing, and distribution of medical devices and implantable human tissues used in cardiac and vascular surgical procedures for patients with aortic disease. We have four major product families: aortic stents and stent grafts, surgical sealants, On-X® mechanical heart valves and related surgical products, and implantable human tissues. Aortic stents and stent grafts include JOTEC® stent grafts and surgical products (“JOTEC” products), the Ascyrus Medical Dissection Stent hybrid prosthesis (“AMDS”), and the NEXUS™ endovascular stent graft system (“NEXUS”). Surgical sealants include BioGlue® Surgical Adhesive (“BioGlue”) products. In addition to these four major product families, we sell or distribute PhotoFix® bovine surgical patches, CardioGenesis® cardiac laser therapy products, and chorioamniotic allografts (previously marketed as NeoPatch®), and PerClot® hemostatic powder (through the Baxter Transaction, described above).

We reported quarterly revenues of $76.1 million for the three months ended June 30, 2021, a 42% increase from the three months ended June 30, 2020. The increase in revenues for the three months ended June 30, 2021 was primarily due to increases in revenues from all product lines and preservation services.

See the “Results of Operations” section below for additional analysis of the three and six months ended June 30, 2021.

**Effects of COVID-19**

In December 2019 an outbreak of a respiratory illness caused by a new coronavirus named “2019-nCoV” (“COVID-19”) was detected, and by March 11, 2020, the World Health Organization (“WHO”) declared the COVID-19 outbreak a “pandemic.”

Beginning in March 2020 we took steps to address the potential impact of COVID-19 on our employees and operations, and to preserve cash, including reducing expenditures and delaying investments. These steps included, but were not limited to, implementing specific protocols to minimize workplace exposures to COVID-19 by our employees; implementing remote work arrangements for most employees we deemed able to do so; restricting business travel; issuing $100.0 million in aggregate principal amount convertible senior notes (“Convertible Senior Notes”); using portions of those proceeds to repay our Revolving Credit Facility and the remainder for general corporate purposes (see the “Liquidity and Capital Resources” identified in Part I, Item 2 of this form 10-Q for further detail of this transaction); implementing hiring restrictions; reducing planned expenditures on some pending clinical trials; imposing senior management cash salary reductions in exchange for cash payments in the second quarter of 2021; requiring our Board of Directors to accept CryoLife stock instead of cash compensation for a six month period through October 2020; and suspending for seven months 2020 management merit increases.

Our efforts to protect our supply chain and reduce the spread of COVID-19 among our employees, including our work-from-home arrangements, were largely successful in 2020 and the first half of 2021 as we continued to operate all manufacturing sites at near full production. These efforts have not materially affected our ability to maintain our business operations, including the operation of financial reporting systems, internal control over financial reporting, or disclosure controls and procedures; however, there is no guarantee that these efforts and arrangements, if they are continued, will continue to be successful in the future. Further, our reductions or delays in expenditures slowed our progress on certain key R&D initiatives and could in the future continue to adversely impact our business operations or further delay our recovery from the pandemic.

Although we have largely scaled back most of our COVID-19 mitigation efforts, we continue to monitor the impact of the COVID-19 pandemic on our business and recognize that it could continue to negatively impact our business and results of operations during the remainder of 2021 and beyond. The extent to which our operations and financial performance will be impacted by the pandemic during the remainder of 2021 will depend largely on future developments, including global availability and acceptance of the vaccine and the emergence and prevalence of more virulent COVID-19 variants. If COVID-19 or its variants become more contagious, if efforts to further contain the effects of COVID-19 or its variants, including vaccine adoption, are unsuccessful, if COVID-19 or its variants impact our supply chain or employee productivity, or if we continue to experience periods of uncertainty due to COVID-19 or its variants, it could materially, adversely affect our revenues, financial condition, profitability, and cash flows.

See the “Risk Factors” identified in Part II, Item 1A of this form 10-Q for risks related to COVID-19.

**New Accounting Pronouncements**

See Note 1 of “Notes to Condensed Consolidated Financial Statements” identified in Part I, Item I of this form 10-Q for further discussion of new accounting standards that have been adopted.

**Results of Operations**
***(Tables in thousands)***

**Revenues**

| | Revenues for the Three Months Ended June 30, | | Percent Change From Prior Year | Revenues as a Percentage of Total Revenues for the Three Months Ended June 30, | |
|---|---|---|---|---|---|
| | **2021** | **2020** | | **2021** | **2020** |
| Products: | | | | | |
| Aortic stents and stent grafts | $ 21,064 | $ 13,174 | 60% | 28% | 24% |
| Surgical sealants | 17,864 | 12,437 | 44% | 24% | 23% |
| On-X | 14,726 | 10,116 | 46% | 19% | 19% |
| Other | 2,422 | 1,541 | 57% | 3% | 3% |
| **Total products** | **56,076** | **37,268** | **50%** | **74%** | **69%** |
| | | | | | |
| Preservation services | 20,072 | 16,503 | 22% | 26% | 31% |
| **Total** | **$ 76,148** | **$ 53,771** | **42%** | **100%** | **100%** |

| | Revenues for the Six Months Ended June 30, | | Percent Change From Prior Year | Revenues as a Percentage of Total Revenues for the Six Months Ended June 30, | |
|---|---|---|---|---|---|
| | **2021** | **2020** | | **2021** | **2020** |
| Products: | | | | | |
| Aortic stents and stent grafts | $ 41,269 | $ 28,642 | 44% | 28% | 24% |
| Surgical sealants | 35,692 | 29,174 | 22% | 24% | 24% |
| On-X | 27,821 | 22,318 | 25% | 19% | 19% |
| Other | 4,639 | 3,554 | 31% | 3% | 3% |
| **Total products** | **109,421** | **83,688** | **31%** | **74%** | **70%** |
| | | | | | |
| Preservation services | 37,814 | 36,512 | 4% | 26% | 30% |
| **Total** | **$ 147,235** | **$ 120,200** | **22%** | **100%** | **100%** |

Revenues increased 42% and 22% for the three and six months ended June 30, 2021, respectively, as compared to the three and six months ended June 30, 2020. The increase in revenues for the three and six months ended June 30, 2021 was due to increases in revenues from all products and preservation services. Excluding the effects for foreign exchange, revenues increased 37% and 19% for the three and six months ended June 30, 2021, respectively, as compared to the three and six months ended June 30, 2020. Revenues for the three and six months ended June 30, 2021 and 2020 were negatively impacted in certain regions by delays or cancellations of some surgical procedures as a result of reduced hospital capacity and hospital restrictions due to the COVID-19 pandemic, as well as patient reluctance to undergo procedures once the adverse impacts to capacity and restrictions decreased. The revenue impact from COVID-19 was smaller and varied regionally during the three and six months ended June 30, 2021 as compared to the three and six months ended June 30, 2020 with the largest negative impact during the three months ended June 30, 2020. A detailed discussion of the changes in product revenues and preservation services revenues for the three and six months ended June 30, 2021 is presented below.

***Products***

Revenues from products increased 50% and 31% for the three and six months ended June 30, 2021, respectively, as compared to the three and six months ended June 30, 2020. The increase for the three and six months ended June 30, 2021 was due to increases in revenues from all products. A discussion of the changes in product revenues for aortic stents and stent grafts, surgical sealants, On-X, and other product revenues is presented below.

Sales of certain products through our direct sales force and distributors across Europe and various other countries are denominated in a variety of currencies including Euros, British Pounds, Polish Zlotys, Swiss Francs, Brazilian Reals, and

Canadian Dollars, with a concentration denominated in Euros. Each currency is subject to exchange rate fluctuations. For the three and six months ended June 30, 2021 as compared to the three and six months ended June 30, 2020, the U.S. Dollar weakened in comparison to major currencies, resulting in revenue increases when these foreign currency denominated transactions were translated into U.S. Dollars. Future changes in these exchange rates could have a material, adverse effect on our revenues denominated in these currencies. Additionally, our sales to many distributors around the world are denominated in U.S. Dollars, and although these sales are not directly impacted by currency exchange rates, we believe that some of our distributors may delay or reduce purchases of products in U.S. Dollars depending on the relative price of these goods in their local currencies.

*Aortic Stents and Stent Grafts*

Aortic stents and stent grafts, including JOTEC, AMDS, and NEXUS products, are used in endovascular and open vascular and cardiac surgery, as well as for the treatment of complex aortic arch and thoracic aortic diseases.

On September 11, 2019 CryoLife and its wholly-owned subsidiary JOTEC entered into exclusive distribution and loan agreements with Endospan Ltd. ("Endospan"), an Israeli corporation, under which JOTEC obtained exclusive distribution rights for Endospan's NEXUS and accessories in certain countries in Europe.

On September 2, 2020 CryoLife entered into an agreement to acquire all of the equity interests of Ascyrus Medical LLC ("Ascyrus"). Ascyrus has developed the AMDS, an aortic arch remodeling device used for the treatment of acute Type A aortic dissections. The AMDS is currently distributed in Europe, the Middle East, and Africa (collectively, "EMEA"), Canada, and the Asia Pacific region and is included as a component of aortic stents and stent grafts revenues from the date of the acquisition.

Aortic stents and stent grafts revenues increased 60% and 44% for the three and six months ended June 30, 2021, respectively, as compared to the three and six months ended June 30, 2020.

Aortic stents and stent grafts revenues, excluding original equipment manufacturing ("OEM"), increased 60% for the three months ended June 30, 2021, as compared to the three months ended June 30, 2020. This increase was primarily due to a 7% increase in volume of units sold, which increased revenues by 54% and the effect of foreign exchange rates, which increased revenues by 9%, partially offset by a change in average sales prices, which decreased revenues by 3%.

Aortic stents and stent grafts revenues, excluding OEM, increased 43% for the six months ended June 30, 2021, as compared to the six months ended June 30, 2020. This increase was primarily due to a change in mix of units sold, which increased revenues by 39%, and the effect of foreign exchange rates, which increased revenues by 8%, partially offset by a change in average sales prices, which decreased revenues by 4%.

On a constant currency basis, revenues for aortic stents and stent grafts, excluding OEM, increased 47% and 32% in the three and six months ended June 30, 2021, as compared to the three and six months ended June 30, 2020. The increase in revenues was partially due to improved conditions from the COVID-19 pandemic for the three and six months ended June 30, 2021 as compared to the three and six months ended June 30, 2020. Revenues for the three and six months ended June 30, 2021 increased primarily in EMEA. The revenue increase in EMEA is primarily due to an increase in sales of JOTEC new product launches, as well as sales of the AMDS as a result of the Ascyrus acquisition in the third quarter of 2020, and an increase in NEXUS sales as these products continue to penetrate the EMEA market. Aortic stents and stent grafts OEM sales accounted for less than 1% of product revenues for the three and six months ended June 30, 2021 and 2020.

*Surgical Sealants*

Surgical sealants include BioGlue products used as an adjunct to standard methods of achieving hemostasis (such as sutures and staples) in adult patients in open surgical repair of large vessels (such as aorta, femoral, and carotid arteries).

Revenues from the sales of surgical sealants increased 44% for the three months ended June 30, 2021, as compared to the three months ended June 30, 2020. This increase was primarily due to an increase in volume of milliliters sold, which increased revenues by 43% and the effect of foreign exchange rates, which increased revenues by 4%, partially offset by a decrease in average sales prices, which decreased revenues by 3%.

Revenues from the sales of surgical sealants increased 22% for the six months ended June 30, 2021, as compared to the six months ended June 30, 2020. This increase was primarily due to an increase of milliliters sold, which increased revenues

by 22% and the effect of foreign exchange rates, which increased revenues by 2%, partially offset by a decrease in average sales prices, which decreased revenues by 2%.

On a constant currency basis, revenues from sales of surgical sealants increased 40% and 20% in the three and six months ended June 30, 2021, respectively, as compared to the three and six months ended June 30, 2020 primarily from revenue increases in North America and EMEA. The revenue increase in the North America and EMEA markets was primarily due to an increase of surgical procedures due to improved conditions related to the COVID-19 pandemic during the three and six months ended June 30, 2021 as compared to the three and six months ended June 30, 2020.

We are currently seeking regulatory approval for BioGlue in China, where the Chinese regulatory body has made additional requests related to the application. If we have not satisfied the regulator's requests and obtained approval by May 2022, the pending application will expire and no longer be eligible for allowance, requiring the Company to restart the approval process.

See Part II, Item 1A, "Risk Factors—Operational Risks— We may not be successful in obtaining necessary clinical results or regulatory clearances/approvals for new and existing products and services, and our approved products and services may not achieve market acceptance."

Domestic revenues from surgical sealants accounted for 54% and 53% of total surgical sealant revenues for the three and six months ended June 30, 2021, respectively, and 54% and 51% of total surgical sealant revenues for the three and six months ended June 30, 2020, respectively.

*On-X*

The On-X catalogue of products includes the On-X prosthetic aortic and mitral heart valves and the On-X ascending aortic prosthesis ("AAP") for heart valve replacement. On-X product revenues also include revenues from the distribution of CarbonAid® $CO_2$ diffusion catheters and from the sale of Chord-X® ePTFE sutures for mitral chordal replacement. On-X also generates revenue from pyrolytic carbon coating products produced for OEM customers.

On-X product revenues increased 46% and 25% for the three and six months ended June 30, 2021, respectively, as compared to the three and six months ended June 30, 2020.

On-X product revenues, excluding OEM, increased 50% for the three months ended June 30, 2021, as compared to the three months ended June 30, 2020. This increase was primarily due to an increase in volume of units sold, which increased revenues by 58%, and the effect of foreign exchange rates, which increased revenues by 2%, partially offset by a decrease in average sales prices, which decreased revenues by 10%.

On-X product revenues, excluding OEM, increased 27% for the six months ended June 30, 2021, as compared to the six months ended June 30, 2020. This increase was primarily due to an increase in volume of units sold, which increased revenues by 30% and the effect of foreign exchange rates, which increased revenues by 2%, partially offset by a decrease in average sales prices, which decreased revenues by 5%.

On a constant currency basis, On-X revenues, excluding OEM, increased 48% and 25% in the three and six months ended June 30, 2021, respectively, as compared to the three and six months ended June 30, 2020. The increase in revenues in the three months ended June 30, 2021, as compared to the three months ended June 30, 2020 was primarily due to revenue increases in North America and EMEA. The increase in revenues in the six months ended June 30, 2021, as compared to the six months ended June 30, 2020 was primarily due to revenue increases in North America, Asia Pacific, and EMEA. The revenue increases in these markets were partially due to improved conditions from the COVID-19 pandemic for the three and six months ended June 30, 2021, as compared to the three and six months ended June 30, 2020. The increase in revenues in North America was also impacted by increases in market share. The increase in revenues in EMEA was also impacted by increase of shipments in direct markets. The increase in revenues in Asia Pacific was also impacted by growth in distributor markets. On-X OEM sales accounted for less than 1% of product revenues for both the three and six months ended June 30, 2021 and 2020.

*Other*

Other revenues are comprised of PhotoFix, PerClot, and CardioGenesis Cardiac Laser Therapy product revenues. Other revenues increased 57% and 31% for the three and six months ended June 30, 2021, respectively, as compared to June 30, 2020.

The increase in revenues for the three months ended June 30, 2021 was primarily due to a 59% and 91% increase in PhotoFix and PerClot revenues, respectively. The increase in PhotoFix revenues was primarily due to increase in volume of units sold, which increased revenues by 57% and the effect of foreign exchange rates, which increased revenues by 2%. The increase in PerClot revenues was primarily due to an increase in volume of units sold, which increased revenues by 99% and the effect of foreign exchange rates, which increased revenues by 14%, partially offset by a change in average sales prices, which decreased revenues by 22%.

The increase in revenues for the six months ended June 30, 2021 was primarily due to a 36% and 37% increase in PhotoFix and PerClot revenues, respectively. The increase in PhotoFix revenues was primarily due to an increase in volume of units sold, which increased revenues by 33%, the effect of foreign exchange rates, which increased revenues by 2% and the increase in average sales prices, which increased revenues by 1%. The increase in PerClot revenues was primarily due to an increase in volume of units sold, which increased revenues by 43% and the effect of foreign exchange rates, which increased revenues by 9%, partially offset by a decrease in average sales prices, which decreased revenues by 15%.

***Preservation Services***

Preservation services includes service revenues from processing cardiac and vascular tissues. Our cardiac valves are primarily used in cardiac replacement and reconstruction surgeries, including the Ross procedure, for patients with endocarditis or congenital heart defects. Our cardiac tissues are primarily distributed in domestic markets. The majority of our vascular preservation services revenues are related to shipments of saphenous veins, which are mainly used in peripheral vascular reconstruction surgeries to avoid limb amputations. Competition with synthetic product alternatives and the availability of tissues for processing are key factors affecting revenue volume that can fluctuate from quarter to quarter. Our vascular tissues are primarily distributed in domestic markets.

We continue to evaluate modifications to our tissue processing procedures in an effort to improve tissue processing throughput, reduce costs, and maintain quality across our tissue processing business. Preservation services revenues, particularly revenues for certain high-demand cardiac tissues, can vary from quarter to quarter and year to year due to a variety of factors including: quantity and type of incoming tissues, yields of tissue through the preservation process, timing of receipt of donor information, timing of the release of tissues for implant, demand for certain tissue types due to the number and type of procedures being performed, and pressures from competing products or services.

In the fourth quarter of 2020, we became aware that a supplier shipped to us a saline solution lot that we use in our tissue processing that contained some contamination in a small number of bottles of the solution lot. The contamination was identified by our in-process quality controls. The contaminated solution was estimated to have impacted a small percentage of tissue processed with this solution lot, causing us to write-off approximately $826,000 of tissue in the fourth quarter of 2020. An additional $5.0 million in tissue was quarantined in process pending further testing. Upon completion of the testing, we began releasing acceptable tissue late in the second quarter of 2021.We believe that the written-off and quarantined tissue impacted the availability of tissue for distribution which had a negative impact on revenue in the first quarter of 2021 and to a lesser extent the second quarter of 2021.

Revenues from tissue processing increased 22% and 4% for the three and six months ended June 30, 2021, respectively, as compared to the three and six months ended June 30, 2020. Revenues were positively impacted by an increase in medical procedures due to improved conditions related to the COVID-19 pandemic for the three and six months ended June 30, 2021, as compared to the three and six months ended June 30, 2020.

The increase in revenues for the three months ended June 30, 2021 was primarily due to a 22% and 21% increase in vascular and cardiac tissue revenues, respectively. The increase in vascular tissue revenues was primarily due to an increase in vascular tissue shipments, which increased revenues 23%, partially offset by a decrease in average service fees, which decreased revenues by 1%. The increase in cardiac tissue revenues was primarily due to an increase in cardiac tissue shipments, which increased revenues 24% and the effect of foreign exchange rates, which increased revenues by 1%, partially offset by a decrease in average service fees, which decreased revenues 4%.

The increase in revenues for the six months ended June 30, 2021 was primarily due to a 7% increase in vascular tissue revenues primarily due to an increase in vascular tissue shipments, which increased revenues 8%, partially offset by a decrease in average service fees, which decreased revenues by 1%.

**Cost of Products and Preservation Services**

***Cost of Products***

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Cost of products | $ 16,178 | $ 10,040 | $ 31,089 | $ 23,080 |

Cost of products increased 61% and 35% for the three and six months ended June 30, 2021, respectively, as compared to the three and six months ended June 30, 2020. Cost of products for the three and six months ended June 30, 2021 and 2020 included costs related to aortic stents and stent grafts, surgical sealants, On-X, and other products.

The increase in cost of products for the three and six months ended June 30, 2021 was primarily due to an increase in shipments due to improved conditions from the COVID-19 pandemic and write-downs of certain products, as compared to the three and six months ended June 30, 2020.

***Cost of Preservation Services***

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Cost of preservation services | $ 9,457 | $ 7,841 | $ 17,795 | $ 17,059 |

Cost of preservation services increased 21% and 4% for the three and six months ended June 30, 2021, respectively, as compared to the three and six months ended June 30, 2020. Cost of preservation services includes costs for cardiac and vascular tissue preservation services.

The increase in cost of preservation services for the three and six months ended June 30, 2021 was primarily due to an increase in shipments due to improved conditions from the COVID-19 pandemic as compared to the three and six months ended June 30, 2020.

***Gross Margin***

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Gross margin | $ 50,513 | $ 35,890 | $ 98,351 | $ 80,061 |
| Gross margin as a percentage of total revenues | 66% | 67% | 67% | 67% |

Gross margin increased 41% for the three months ended June 30, 2021 as compared to the three months ended June 30, 2020. The increase for the three months ended June 30, 2021 as compared to the three months ended June 30, 2020 was primarily due to an increase in the volume of products sold. Gross margin as a percentage of total revenues decreased for the three months ended June 30, 2021 as compared to the three months ended June 30, 2020, primarily due to write-downs of certain products, partially offset by the mix of products sold.

Gross margin increased 23% for the six months ended June 30, 2021 as compared to the six months ended June 30, 2020. The increase for the six months ended June 30, 2021 as compared to the six months ended June 30, 2020 was primarily due to favorable pricing of certain products and an increase in the volume of products sold. Gross margin as a percentage of total revenues remained flat for the six months ended June 30, 2021 as compared to the six months ended June 30, 2020. Gross margins as a percentage of revenues were favorably impacted by pricing of new JOTEC product launches, as well as the AMDS, and mix of products sold, partially offset by write-downs of certain products.

**Operating Expenses**

***General, Administrative, and Marketing Expenses***

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| General, administrative, and marketing expenses | $ 40,830 | $ 32,288 | $ 79,468 | $ 71,290 |
| General, administrative, and marketing expenses as a percentage of total revenues | 54% | 60% | 54% | 59% |

General, administrative, and marketing expenses increased 26% and 11% for the three and six months ended June 30, 2021, respectively, as compared to the three and six months ended June 30, 2020. The increase in General, administrative, and marketing expenses for the three and six months ended June 30, 2021 was primarily due to an increase in personnel, commission, amortization, business development, integration, and severance expenses. General, administrative, and marketing expenses included $3.4 million and $4.8 million of business development, integration, and severance expenses for the three and six months ended June 30, 2021, respectively, as compared to $653,000 and $1.5 million for the three and six months ended June 30, 2020, respectively. Business development, integration, and severance expenses during the three and six months ended June 30, 2021 were primarily comprised of charges related to the Ascyrus acquisition.

***Research and Development Expenses***

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Research and development expenses | $ 8,360 | $ 5,522 | $ 16,114 | $ 11,878 |
| Research and development expenses as a percentage of total revenues | 11% | 10% | 11% | 10% |

Research and development expenses increased 51% and 36% for the three and six months ended June 30, 2021, respectively, as compared to the three and six months ended June 30, 2020. Research and development spending in the three and six months ended June 30, 2021 was primarily focused on clinical work to gain regulatory approvals for On-X, JOTEC, and PerClot products. Research and development spending in the three and six months ended June 30, 2020 was primarily focused on clinical work to gain regulatory approval for On-X and JOTEC products.

**Interest Expense**

Interest expense was $4.9 million and $8.9 million for the three and six months ended June 30, 2021, respectively, as compared to $3.7 million and $7.0 million for the three and six months ended June 30, 2020, respectively. Interest expense for the three and six months ended June 30, 2021 and 2020 relates to interest on debt and uncertain tax positions.

**Other (Income) Expense, Net**

Other income, net was $1.3 million and $740,000 for the three months ended June 30, 2021 and 2020, respectively. Other expense, net was $600,000 and $2.9 million for the six months ended June 30, 2021 and 2020, respectively. Other (income) expense, net primarily includes the realized and unrealized effects of foreign currency gains and losses.

**Earnings**

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Loss before income taxes | $ (2,183) | $ (4,766) | $ (6,684) | $ (12,901) |
| Income tax benefit | (5) | (1,077) | (1,368) | (2,547) |
| **Net loss** | **$ (2,178)** | **$ (3,689)** | **$ (5,316)** | **$ (10,354)** |
| **Diluted loss per common share** | **$ (0.06)** | **$ (0.10)** | **$ (0.14)** | **$ (0.27)** |
| **Diluted weighted-average common shares outstanding** | **38,943** | **37,520** | **38,841** | **37,455** |

We experienced a loss before income taxes for the three and six months ended June 30, 2021 and 2020. The loss before income taxes for the three and six months ended June 30, 2021 was due to business development, integration and severance expenses primarily related to the Ascyrus acquisition, investments in the research and development pipeline, and delays and cancellations of some surgical procedures as a result of reduced hospital capacity and hospital restrictions due to the COVID-19 pandemic.

Our effective income tax rate was a benefit of under 1% and 20% for the three and six months ended June 30, 2021, respectively, as compared to a benefit of 23% and 20% for the three and six months ended June 30, 2020, respectively. The change in the tax rate for the three and six months ended June 30, 2021 is primarily due to a change in pre-tax book loss and an increase in the excess tax benefit related to stock compensation for the three and six months ended June 30, 2021, as well as an increase in the estimated current year valuation allowance, as compared to the three and six months ended June 30, 2020.

The income tax rate for the three and six months ended June 30, 2021 was favorably impacted by excess tax benefit deductions related to stock compensation, the research and development tax credit, and the reduction of a valuation allowance on prior year items. These factors were partially offset by the unfavorable impacts of non-deductible operating expenses, executive compensation expenses, an increase in the valuation allowance on current year items, and the recording of a tax reserve on prior year items.

The income tax rate for the three and six months ended June 30, 2020 was favorably impacted by excess tax benefit deductions related to stock compensation, the research and development tax credit. These factors were partially offset by the unfavorable impacts of non-deductible operating expenses and executive compensation expenses.

In response to the COVID-19 pandemic, the U.S. government enacted the Coronavirus Aid, Relief and Economic Security Act (“CARES Act”) on March 27, 2020. The CARES Act provided various forms of relief and assistance to U.S. businesses. We recorded a reduction to income taxes payable and deferred tax assets of approximately $1.3 million for the change to the 2019 Section 163(j) interest expense deduction limitation for the three months ended March 31, 2020.

We experienced a net loss and diluted loss per common share for the three and six months ended June 30, 2021 and 2020. Net loss and diluted loss per common share for the three months ended June 30, 2021 was primarily due to a loss before income taxes, as discussed above.

**Seasonality**

Historically, we believe the demand for aortic stents and stent grafts is seasonal, with a decline in demand generally occurring in the third quarter due to the summer holiday season in Europe. However, the nature of any seasonal trends may have been obscured during the period due to integration activities subsequent to the JOTEC acquisition including the implementation of our distributor-to-direct strategy and our European sales force realignment as well as the recent market introduction of AMDS and NEXUS products.

Historically, we believe the demand for BioGlue and On-X products is seasonal, with a decline in demand generally occurring in the third quarter followed by stronger demand in the fourth quarter. We believe that this trend may be due to the summer holiday season in Europe and the U.S.

We are uncertain whether the demand for AMDS and NEXUS products is seasonal, as these products have not fully penetrated many markets and, therefore, the nature of any seasonal trends may not yet be obvious.

We do not believe the demand for our other products is seasonal.

Demand for our cardiac preservation services has traditionally been seasonal, with peak demand generally occurring in the third quarter. We believe this trend for cardiac preservation services is primarily due to the high number of surgeries scheduled during the summer months for school-aged patients. Based on experience in recent years, we believe that this trend is lessening as we are distributing a higher percentage of our tissues for use in adult populations.

Demand for our vascular preservation services has also traditionally been seasonal, with lowest demand generally occurring in the fourth quarter. We believe this trend for vascular preservation services is primarily due to fewer vascular surgeries being scheduled during the winter holiday months.

As a result of the uncertainty and other impacts of the COVID-19 pandemic and the resulting shifts of timing in some revenue, our historically observable seasonality of revenues has been impacted or obscured in 2020 and 2021 and may be obscured for the remainder of 2021 and potentially beyond.

**Liquidity and Capital Resources**

***Net Working Capital***

As of June 30, 2021 net working capital (current assets of $238.1 million less current liabilities of $58.9 million) was $179.2 million, with a current ratio (current assets divided by current liabilities) of 4 to 1, compared to net working capital of $174.1 million and a current ratio of 4 to 1 at December 31, 2020.

***Overall Liquidity and Capital Resources***

Our primary cash requirements for the six months ended June 30, 2021 were for general working capital needs, capital expenditures for facilities and equipment, interest and principal payments under our Credit Agreement (defined below), interest payments under our Convertible Senior Notes (defined below), and repurchases of stock to cover tax withholdings. We funded our cash requirements through our existing cash reserves and proceeds from stock option exercises.

We believe our cash from operations and existing cash and cash equivalents will enable us to meet our current operational liquidity needs for at least the next twelve months. Our future cash requirements are expected to include interest and principal payments under our Credit Agreement and Convertible Senior Notes (described in “Significant Sources and Uses of Liquidity” section below), expenditures for clinical trials, research and development expenditures, general working capital needs, capital expenditures, and other corporate purposes and may include cash to fund business development activities including obligations in the Endospan and Ascyrus agreements. These items may have a significant effect on our future cash flows during the next twelve months. Subject to the terms of our Credit Agreement, we may seek additional borrowing capacity or financing, pursuant to our current or any future shelf registration statement, for general corporate purposes or to fund other future cash requirements. If we undertake any further significant business development activity, we may need to finance such activities by obtaining additional debt financing or using a registration statement to sell equities. There can be no assurance that we will be able to obtain any additional debt or equity financing at the time needed or that such financing will be available on terms that are favorable or acceptable to us.

***Significant Sources and Uses of Liquidity***

On December 1, 2017 we entered into a credit and guaranty agreement for a $255.0 million senior secured credit facility, consisting of a $225.0 million secured term loan facility (the “Term Loan Facility”) and a $30.0 million secured revolving credit facility (“the Revolving Credit Facility” and, together with the Term Loan Facility, the “Credit Agreement”). We and each of our existing domestic subsidiaries (subject to certain exceptions and exclusions) guarantee the obligations under the Credit Agreement (the “Guarantors”). The Credit Agreement is secured by a security interest in substantially all existing and after-acquired real and personal property (subject to certain exceptions and exclusions) of us and the Guarantors.

On June 2, 2021 we entered into an amendment to our Credit Agreement to extend the maturity dates of both the Company’s Term Loan and its Revolving Credit Facility. As part of the amendment, the maturity dates of both the Company’s Term Loan and its Revolving Credit Facility are each extended by two and one-half years, until June 1, 2027 and June 1, 2025, respectively, subject to earlier springing maturities if our 4.25% Convertible Senior Notes, described below,

remain outstanding on April 1, 2025 and December 31, 2024, respectively. With respect to the Term Loan, if the Convertible Senior Notes remain outstanding on April 1, 2025, the Term's Loan's Maturity Date will be April 1, 2025, or, if the Convertible Senior Notes' own maturity date has been extended, the earlier of (i) 91 days prior to the Convertible Senior Notes' new maturity date and (ii) June 1, 2027. In the case of the Revolving Credit Facility, if the Convertible Senior Notes are still outstanding on December 31, 2024, the Revolving Credit Facility's Maturity Date will be either December 31, 2024 or, if the Convertible Senior Notes' own maturity date has been extended, the earlier of (i) 182 days prior to the Convertible Senior Notes' new maturity date and (ii) June 1, 2025. Under the amendment, the Term Loan Facility bears interest, at our option, at a floating annual rate equal to either the base rate, plus a margin of 2.50%, or LIBOR, plus a margin of 3.50%. Prior to the amendment, the optional floating annual rate was equal to either the base rate plus a margin of 2.25%, or LIBOR, plus a margin of 3.25%.

On June 18, 2020 we issued $100.0 million aggregate principal amount of 4.25% Convertible Senior Notes with a maturity date of July 1, 2025 (the "Convertible Senior Notes"). The net proceeds from this offering, after deducting initial purchasers' discounts and costs directly related to this offering, were approximately $96.5 million. On January 1, 2021 we adopted ASU 2020-06 and adjusted the carrying balance of the Convertible Senior Notes to notional. The Convertible Senior Notes balance was $100.0 million recorded in Long-term debt on the Condensed Consolidated Balance Sheets as of June 30, 2021. The Convertible Senior Notes may be settled in cash, stock, or a combination thereof, solely at our discretion. The initial conversion rate of the Convertible Senior Notes is 42.6203 shares per $1,000 principal amount, which is equivalent to a conversion price of approximately $23.46 per share, subject to adjustments. We use the if-converted method for assumed conversion of the Convertible Senior Notes for the diluted earnings per share calculation. The fair value and the effective interest rate of the Convertible Senior Notes as of June 30, 2021 was approximately $144.6 million and 5.05%, respectively. The fair value was based on market prices observable for similar instruments and is considered Level 2 in the fair value hierarchy.

The interest expense recognized on the Convertible Senior Notes includes approximately $1.2 million and $2.4 million for the aggregate of the contractual coupon interest, and the amortization of the debt issuance costs as of the three and six months ended June 30, 2021, respectively. Interest on the Convertible Senior Notes began accruing upon issuance and is payable semi-annually.

Holders of the Convertible Senior Notes may convert their notes at their option at any time prior to January 1, 2025 but only under the following circumstances: (i) during any calendar quarter commencing after the calendar quarter ending on September 30, 2020 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (ii) during the five business day period after any five consecutive trading day period in which the trading price per $1,000 principal amount of notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such trading day; (iii) we give a notice of redemption with respect to any or all of the notes, at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; or (iv) upon the occurrence of specified corporate events. On or after January 1, 2025 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their notes at any time, regardless of the foregoing circumstances.

We cannot redeem the Convertible Senior Notes before July 5, 2023. We can redeem them on or after July 5, 2023, in whole or in part, at our option, if the last reported sale price per share of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption. We may redeem for cash all or part of the Convertible Senior Notes at a redemption price equal to 100% of the principal amount of the redeemable Convertible Senior Notes, plus accrued and unpaid interest to, but excluding, the redemption date. No principal payments are due on the Convertible Senior Notes prior to maturity. Other than restrictions relating to certain fundamental changes and consolidations, mergers or asset sales and customary anti-dilution adjustments, the Convertible Senior Notes do not contain any financial covenants and do not restrict us from conducting significant restructuring transactions or issuing or repurchasing any of its other securities.

As of June 30, 2021 approximately 42% of our cash and cash equivalents were held in foreign jurisdictions.

***Net Cash Flows from Operating Activities***

Net cash used in operating activities was $392,000 for the six months ended June 30, 2021, as compared to $760,000 for the six months ended June 30, 2020.

We use the indirect method to prepare our cash flow statement and, accordingly, the operating cash flows are based on our net loss, which is then adjusted to remove non-cash items, items classified as investing and financing cash flows, and changes in operating assets and liabilities from the prior year end. For the six months ended June 30, 2021 these non-cash items included $12.0 million in depreciation and amortization expenses, $4.6 million in non-cash compensation, $4.3 million fair-value adjustment related to the Ascyrus acquisition, and $4.3 million of deferred income tax changes.

Our working capital needs, or changes in operating assets and liabilities, also affected cash from operations. For the six months ended June 30, 2021 these included the unfavorable effect of an $11.7 million increase in inventory balances and deferred preservation costs, the unfavorable effect of a $5.5 million increase in receivables, and the unfavorable effect of a $2.1 million increase in prepaid expenses and other assets, and the unfavorable effect of a $1.2 million decrease in accounts payable, accrued expenses, and other liabilities.

***Net Cash Flows from Investing Activities***

Net cash used in investing activities was $7.0 million for the six months ended June 30, 2021, as compared to $4.5 million for the six months ended June 30, 2020. During the six months ended June 30, 2021 cash flows used in investing activities included $7.2 million related to capital expenditures.

***Net Cash Flows from Financing Activities***

Net cash used in financing activities was $3.7 million for the six months ended June 30, 2021, as compared to cash provided by financing activities of $96.2 million for the six months ended June 30, 2020. The current year cash used in financing activities was primarily due to $2.2 million payment of debt issuance costs, $1.8 million for repurchases of common stock to cover tax withholdings and $1.4 million repayment of term loan debt, partially offset by $2.3 million of proceeds from exercise of stock options and issuances of common stock.

**Off-Balance Sheet Arrangements**

We have no off-balance sheet arrangements.

**Scheduled Contractual Obligations and Future Payments**

Our long-term debt obligations and interest payments include $319.1 million of scheduled principal payments and $73.1 million in anticipated interest payments related to our Credit Agreement, Convertible Senior Notes, and JOTEC governmental loans.

We have contingent payment obligations that include up to $120.0 million to be paid to the former shareholders of Ascyrus, of which $10.0 million is expected to be paid in CryoLife common stock, upon the achievement of certain milestones. We anticipate making a $5.0 million third tranche payment under the Endospan Loan upon receipt of certification that certain approvals and clinical trial milestones have been achieved.

On September 28, 2010 we entered into a worldwide distribution agreement and a license and manufacturing agreement (collectively, the “SMI Agreements”) with Starch Medical, Inc. (“SMI”), for PerClot®, a polysaccharide hemostatic agent used in surgery.

On July 28, 2021 we entered into an asset purchase agreement and other ancillary agreements related to the sale of our PerClot assets to a subsidiary of Baxter International, Inc. (“Baxter”) and an agreement to terminate all of our material agreements with SMI related to PerClot (collectively the “Baxter Transaction”). As part of the Baxter Transaction, the SMI contingent liabilities were extinguished.

Our operating and finance lease obligations result from the lease of land and buildings that comprise our corporate headquarters and our various manufacturing facilities, leases related to additional manufacturing, office, and warehouse space, leases on Company vehicles, and leases on a variety of office equipment and other equipment.

**Capital Expenditures**

Capital expenditures were $7.2 million and $3.8 million for the six months ended June 30, 2021 and 2020, respectively. Capital expenditures in the six months ended June 30, 2021 were primarily related to leasehold improvements needed to support our business, routine purchases of manufacturing and tissues processing equipment, computer software, and equipment.

**Risks and Uncertainties**

See the “Risk Factors” identified in Part II, Item 1A of this Form 10-Q.

**Item 3. Quantitative and Qualitative Disclosures About Market Risk.**

**Interest Rate Risk**

Our interest income and interest expense are sensitive to changes in the general level of U.S. interest rates. In this regard, changes in U.S. interest rates affect the interest earned on our cash and cash equivalents of $50.5 million as of June 30, 2021 and interest paid on the outstanding balances, if any, of our variable rate Revolving Credit Facility, Term Loan Facility, and Convertible Senior Notes. A 10% adverse change in interest rates, as compared to the rates experienced by us in the six months ended June 30, 2021, affecting our cash and cash equivalents, restricted cash and securities, Term Loan Facility, Revolving Credit Facility, and Convertible Senior Notes would not have a material effect on our financial position, results of operations, or cash flows.

**Foreign Currency Exchange Rate Risk**

We have balances, such as cash, accounts receivable, accounts payable, and accruals that are denominated in foreign currencies. These foreign currency denominated balances are sensitive to changes in exchange rates. In this regard, changes in exchange rates could cause a change in the U.S. Dollar equivalent of cash or funds that we will receive in payment for assets or that we would have to pay to settle liabilities. As a result, we could be required to record these changes as gains or losses on foreign currency translation.

We have revenues and expenses that are denominated in foreign currencies. Specifically, a portion of our international BioGlue, On-X, PerClot, and aortic stents and stent grafts revenues are denominated in Euros, British Pounds, Swiss Francs, Polish Zlotys, Canadian Dollars, and Brazilian Reals, and a portion of our General, administrative, and marketing expenses are denominated in Euros, British Pounds, Swiss Francs, Polish Zlotys, Canadian Dollars, Brazilian Reals and Singapore Dollars. These foreign currency transactions are sensitive to changes in exchange rates. In this regard, changes in exchange rates could cause a change in the U.S. Dollar equivalent of net income from transactions conducted in other currencies. As a result, revenues and expenses could fluctuate related to a change in exchange rates.

An additional 10% adverse change in exchange rates from the exchange rates in effect on June 30, 2021 affecting our balances denominated in foreign currencies could impact our financial position or cash flows by approximately $10.6 million. An additional 10% adverse change in exchange rates from the weighted-average exchange rates experienced by us for the six months ended June 30, 2021 affecting our revenue and expense transactions denominated in foreign currencies, would not have had a material impact on our financial position, profitability, or cash flows.

**Item 4. Controls and Procedures.**

**Evaluation of Disclosure Controls and Procedures**

We maintain disclosure controls and procedures (“Disclosure Controls”) as such term is defined under Rule 13a-15(e) promulgated under the Exchange Act. These Disclosure Controls are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms and that such information is accumulated and communicated to management, including to the Chief Executive Officer (“CEO”) and Chief Financial Officer (“CFO”), as appropriate, to allow timely decisions regarding required disclosures.

Our management, including our President and CEO and our Executive Vice President of Finance, Chief Operating Officer, and CFO, does not expect that our Disclosure Controls will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving our stated goals under all potential future conditions. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Due to the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within CryoLife have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Our Disclosure Controls have been designed to provide reasonable assurance of achieving their objectives.

Our management utilizes the criteria set forth in "Internal Control-Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission to evaluate the effectiveness of our Disclosure Controls over financial reporting. Based upon the most recent Disclosure Controls evaluation conducted by management with the participation of the CEO and CFO, as of June 30, 2021, the CEO and CFO have concluded that our Disclosure Controls were effective at a reasonable assurance level to satisfy their objectives and to ensure that the information required to be disclosed by us in our periodic reports is accumulated and communicated to management, including the CEO and CFO, as appropriate to allow timely decisions regarding disclosure and is recorded, processed, summarized, and reported within the time periods specified in the U.S. Securities and Exchange Commission's rules and forms.

**Changes to Disclosure Controls and Procedures**

As disclosed above, on September 2, 2020 we entered into the Ascyrus Agreement to acquire 100% of the outstanding equity interests of Ascyrus. We are currently in the process of implementing CryoLife's internal control structure over these operations.

There were no other changes in our 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 June 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.

From time to time, we are involved in legal proceedings concerning matters arising from the conduct of our business activities. We regularly evaluate the status of legal proceedings in which we are involved in order to assess whether a loss is probable or whether there is a reasonable possibility that a loss or additional loss may have been incurred and to determine if accruals are appropriate. We further evaluate each legal proceeding to assess whether an estimate of possible loss or range of loss can be made.

Based on current knowledge, we do not believe that there are any pending matters that could potentially have a material adverse effect on our business, financial condition, results of operations, or cash flows. We are, however, engaged in various legal actions in the normal course of business. There can be no assurances in light of the inherent uncertainties involved in any potential legal proceedings, some of which are beyond our control, and an adverse outcome in any legal proceeding could be material to our results of operations or cash flows for any particular reporting period.

### Item 1A. Risk Factors.

**Risks Relating to Our Business**

Our business involves a variety of risks and uncertainties, known and unknown, including, among others, the risks discussed below. These risks should be carefully considered together with the other information provided in our Annual Report on Form 10-K and in our other filings with the SEC. Our failure to adequately anticipate or address these risks and uncertainties may have a material, adverse impact on our business, reputation, revenues, financial condition, profitability, and cash flows. Additional risks and uncertainties not presently known or knowable to us, or that we currently believe to be immaterial, may also adversely affect our business.

**Business and Economic Risks**

**COVID-19, and similar outbreaks, could have a material, adverse impact on us.**

During 2020 and 2021, businesses, communities, and governments worldwide have taken, and continue to take, a wide range of actions to mitigate the spread and impact of COVID-19, leading to an unprecedented impact on the global economy. Hospitals and other healthcare providers have adopted differing approaches to address the surge and resurgence of COVID-19 cases, including their impact on healthcare workers, such as postponing elective and non-emergent procedures, restricting access to their facilities, cancelling elective procedures, or re-allocating scarce resources to some critically ill patients. Although some areas have seen a decline in COVID-19 cases, the potential for additional impact from new variants of COVID-19 and longer than anticipated timelines for widespread therapeutic and vaccine availability and acceptance remain. These conditions have impacted and could continue to impact our business activities, including the following activities:

- Our product sales. Certain regions have experienced an impact on revenues in the three and six months ended June 30, 2021, due to the COVID-19 pandemic. In addition to COVID-19's impact on procedure volumes, we have begun to observe additional downstream effects on our business, including an increase in delays or difficulty in collecting certain outstanding receivables, particularly with certain governmental payors in regions heavily impacted by COVID-19. The extent to which our financial performance will be impacted by the pandemic in 2021 and beyond will depend largely on future developments, including global availability and acceptance of the vaccine.
- Our business operations. In 2020 we took several steps to address the impact of COVID-19 on our employees, cash consumption, and operations, including reducing expenditures and delaying investments. The reductions and delays we adopted could adversely impact our business operations or delay our recovery from the effects of the pandemic. Although we have begun to scale back many of these steps in most geographies, the COVID-19 virus and its variants remain highly contagious and our efforts to contain the spread of COVID-19 and its variants among our employees, including our key personnel, and to protect our supply chain, may not succeed.
- Our management of our indebtedness. Partly as a precautionary measure to increase cash and maintain maximum financial flexibility during the COVID-19 pandemic, we issued $100.0 million aggregate principal amount of 4.25% convertible senior notes with a maturity date of July 1, 2025 ("Convertible Senior Notes"), using portions of those proceeds to repay our Revolving Credit Facility and using and retaining the remainder for general corporate purposes which may limit our operational flexibility and adversely affect our ability to raise additional capital.
- Our research and development projects. In 2020 we reduced spending on research and development projects, including clinical research projects. These reductions could adversely impact future revenue, and additional reductions in spending could be implemented, further impacting future revenue. In addition, our ability to conduct our ongoing research and development projects in markets that are affected by COVID-19 has been, and could continue to be, adversely impacted. Enrollment and timelines for our clinical trials have been, and might continue to be, impacted as healthcare providers reprioritize resources and limit access to healthcare facilities or as patients decline to participate or are hesitant to voluntarily visit healthcare facilities. In addition, COVID-19-related impacts on government and regulatory agencies have slowed and might continue to slow timelines for regulatory actions, including approvals.

If COVID-19 or its variants continue to spread, if efforts to contain COVID-19 or its variants continue or are unsuccessful, if we experience new infections of COVID-19 in areas previously successful in containing its spread, or if COVID-19 or its variants spread among our employees or impacts our supply chain, it could materially, adversely affect our revenues, financial condition, profitability, and cash flows. The nature and extent of these developments are highly uncertain and unpredictable and may vary greatly by region. These adverse developments or a prolonged period of uncertainty could adversely affect our financial performance.

**We are subject to a variety of risks due to our global expansion.**

Our international operations subject us to a number of risks, which may vary significantly from the risks we face in our U.S. operations, including:

- Greater difficulties and costs associated with staffing, establishing and maintaining internal controls, managing foreign operations and distributor relationships, and selling directly to customers;
- Broader exposure to corruption and expanded compliance obligations, including under the Foreign Corrupt Practices Act, the U.K. Bribery Law, local anti-corruption laws, Office of Foreign Asset Control administered

sanction programs, the European Union's General Data Protection Regulation, and other emerging corruption and data privacy regulations;
- Overlapping and potentially conflicting, or unexpected changes in, international legal and regulatory requirements or reimbursement policies and programs;
- Longer and more expensive collection cycles in certain countries, particularly those in which our primary customers are government-funded hospitals;
- Changes in currency exchange rates, particularly fluctuations in the Euro as compared to the U.S. Dollar;
- Potential adverse tax consequences of overlapping tax structures; and
- Potential adverse financial and regulatory consequences resulting from the exit of the U.K. from the European Union, or "Brexit."

**We operate in highly competitive market segments, face competition from large, well-established medical device companies and tissue service providers with greater resources and may not be able to compete effectively.**

The market for our products and services is competitive and affected by new product introductions and activities of other industry participants. We face intense competition in virtually all of our product lines. A significant percentage of market revenues from competitive products are generated by Baxter International, Inc.; Ethicon (a Johnson & Johnson Company); Medtronic, Inc.; Abbott Laboratories; Edwards Lifesciences Corp.; Bard, a subsidiary of Becton, Dickinson and Company; Integra Life Sciences Holdings; LifeNet; Anteris Technologies, Inc.; Aziyo Biologics; Cook Medical; Gore & Associates; Terumo Aortic Corp.; LeMaitre Vascular, Inc.; Maquet, Inc.; Pfizer, Inc.; and BioCer Entwicklungs-GmbH. Several of our competitors enjoy competitive advantages over us, including:

- Greater financial and other resources for research and development, commercialization, acquisitions, and litigation;
- Greater name recognition as well as more recognizable trademarks for products similar to products that we sell;
- More established record of obtaining and maintaining regulatory product clearances or approvals;
- More established relationships with healthcare providers and payors;
- Lower cost of goods sold or preservation costs; and
- Larger direct sales forces and more established distribution networks.

**We are significantly dependent on our revenues from tissue preservation services and are subject to a variety of risks affecting them.**

Tissue preservation services are a significant source of our revenues, accounting for 26% and 31% of revenues for the three months ended June 30, 2021 and 2020, respectively, and as such, we face risks if we are unable to:

- Source sufficient quantities of some human tissue or address potential excess supply of others. We rely primarily upon the efforts of third-parties to educate the public and foster a willingness to donate tissue. Factors beyond our control such as supply, regulatory changes, negative publicity concerning methods of tissue recovery or disease transmission from donated tissue, or public opinion of the donor process as well as our own reputation in the industry can negatively impact the supply of tissue;
- Compete effectively, as we may be unable to capitalize on our clinical advantages or our competitors may have advantages over us in terms of cost structure, pricing, back office automation, marketing, and sourcing; or
- Mitigate sufficiently the risk that tissue can become contaminated during processing; that processed tissue cannot be end-sterilized and hence carries an inherent risk of infection or disease transmission or that our quality controls can eliminate that risk.

As an example of this risk, in the fourth quarter of 2020 we became aware that a supplier shipped to us a lot of saline solution that we use in our tissue processing that contained some contamination. The contamination was identified by our routine quality controls. While we were able to mitigate the impact of this contamination through our own efforts and additional testing that was reviewed with the FDA, the contaminated solution impacted a small percentage of the tissue processed with this lot of solution, requiring us to write-off approximately $826,000 in contaminated tissues in the fourth quarter of 2020. The written off and temporarily quarantined tissue impacted our ability to fully meet demand for certain tissues and sizes in the fourth quarter of 2020, the first quarter of 2021, and to a lesser extent the second quarter of 2021.

In addition, U.S. and foreign governmental authorities have adopted laws and regulations that restrict tissue preservation services. Any of these laws or regulations could change, including becoming more restrictive or our interpretation of them could be challenged by governmental authorities.

**We are significantly dependent on our revenues from BioGlue and are subject to a variety of related risks.**

BioGlue Surgical Adhesive ("BioGlue") is a significant source of our revenues, accounting for 24% and 23% of revenues for the three months ended June 30, 2021 and 2020, respectively, and as such, any risk adversely affecting our BioGlue products or business would likely be material to our financial results. We face the following risks related to BioGlue:

- Competing effectively with our major competitors, as they may have advantages over us in terms of cost structure, supply chain, pricing, sales force footprint, and brand recognition;
- We may be unable to obtain approval to commercialize BioGlue in certain non U.S. countries as fast as our competitors do of their products or at all. We also may not be able to capitalize on new BioGlue approvals, including for new indications, in non U.S. countries;
- BioGlue contains a bovine blood protein. Animal-based products are subject to increased scrutiny from the public and regulators, who may seek to impose additional regulations or product bans in certain countries on such products; BioGlue is a mature product and other companies may use the inventions disclosed in expired BioGlue patents to develop and make competing products; and
- BioGlue faces potential adverse regulatory consequences resulting from the exit of the U.K. from the European Union, or "Brexit." See Part I, Item 1A, "Risk Factors—Industry Risks— Our products and tissues are highly regulated and subject to significant quality and regulatory risks."

**We are significantly dependent on our revenues from aortic stents and stent grafts and are subject to a variety of related risks.**

Aortic stents and stent grafts is a significant source of our revenues, accounting for 28% and 24% of revenues for the three months ended June 30, 2021 and 2020, respectively, and as such, any risk adversely affecting aortic stents and stent grafts would likely be material to our financial results. We face the following aortic stents and stent grafts related risks based on our ability to:

- Compete effectively with our major competitors, as they may have advantages over us in terms of cost structure, supply chain, pricing, sales force footprint, and brand recognition;
- Develop innovative and in-demand aortic repair products;
- Respond adequately to enhanced regulatory requirements and enforcement activities;
- Meet demand for aortic stents and stent grafts as we seek to expand our business globally; and
- Maintain a productive working relationship with our Works Council in Germany.

**We are significantly dependent on our revenues from On-X and are subject to a variety of related risks.**

On-X is a significant source of our revenues, accounting for 19% of revenues for the three months ended June 30, 2021 and 2020 and as such, any risk adversely affecting our On-X products or business would likely be material to our financial results. We face risks based on our ability to:

- Compete effectively with some of our major competitors, as they may have advantages over us in terms of cost structure, supply chain, pricing, sales force footprint, and brand recognition;
- Take market share in the mechanical heart valve market based on the FDA's approved lower International Normalized Ratio ("INR") indication or complete the associated FDA mandated post-approval studies;
- Address clinical trial data or changes in technology that may reduce the demand for mechanical heart valves, such as transcatheter aortic valve replacement, or "TAVR" devices;
- Manage risks associated with less favorable contract terms for On-X products on consignment at hospitals;
- Respond adequately to enhanced OUS regulatory requirements or enforcement activities; and
- Receive timely renewal certifications in certain markets.

**Continued fluctuation of foreign currencies relative to the U.S. Dollar could materially, adversely affect our business.**

The majority of our foreign product revenues are denominated in Euros and, as such, are sensitive to changes in exchange rates. In addition, a portion of our dollar-denominated and euro-denominated product sales are made to customers in other countries who must convert local currencies into U.S. Dollars or Euros in order to purchase these products. We also have balances, such as cash, accounts receivable, accounts payable, and accruals that are denominated in foreign currencies.

These foreign currency transactions and balances are sensitive to changes in exchange rates. Fluctuations in exchange rates of Euros or other local currencies in relation to the U.S. Dollar could materially reduce our future revenues as compared to the comparable prior periods. Should this occur, it could have a material, adverse impact on our revenues, financial condition, profitability, and cash flows.

**Our charges resulting from acquisitions, restructurings, and integrations may materially, adversely affect the market value of our common stock.**

We account for the completion of acquisitions using the purchase method of accounting. Our financial results could be adversely affected by a number of financial adjustments required by purchase accounting such as:

- We may incur added amortization expense over the estimated useful lives of some acquired intangible assets;
- We may incur additional depreciation expense as a result of recording purchased tangible assets;
- We may be required to incur material charges relating to any impairment of goodwill and intangible assets;
- Cost of sales may increase temporarily if acquired inventory is recorded at fair market value;
- If acquisition consideration consists of earn-outs, our earnings may be affected by changes in estimates of future contingent consideration; or
- Earnings may be affected by transaction and integration costs, which are expensed immediately.

**Our existing insurance coverage may be insufficient, and we may be unable to obtain insurance in the future.**

We maintain claims-made insurance policies to mitigate our financial exposure to product and tissue processing liability and securities, claims, among others, that are reported to the insurance carrier while the policy is in effect. These policies do not include coverage for punitive damages. Although we have insurance for product and tissue processing liabilities, securities, property, and general liabilities, if we are unsuccessful in arranging cost-effective acceptable resolutions of claims, it is possible that our insurance program may not be adequate to cover any or all possible claims or losses, including losses arising out of natural disasters or catastrophic circumstances. Any significant claim could result in an increase in our insurance rates or jeopardize our ability to secure coverage on reasonable terms, if at all.

Any securities or product liability/tissue processing claim, even a meritless or unsuccessful one, could be costly to defend, and result in diversion of our management’s attention from our business, adverse publicity, withdrawal of clinical trial participants, injury to our reputation, or loss of revenue.

**Operational Risks**

**We are heavily dependent on our suppliers and contract manufacturers to provide quality products.**

The materials and supplies used in our product manufacturing and tissue processing are subject to regulatory requirements and oversight. If materials or supplies used in our processes fail to meet these requirements or are subject to regulatory enforcement action, they may have to be scrapped, or our products or tissues could be rejected during or after processing, recalled, or rejected by customers. In these cases, we may have to immediately scrap raw or in process materials or expense the costs of manufacturing or preservation.

As an example of this risk, in the fourth quarter of 2020 we became aware that a supplier shipped to us a lot of saline solution that we use in our tissue processing that contained some contamination. The contamination was identified by our routine quality controls. While we were able to mitigate the impact of this contamination through our own efforts and additional testing that was reviewed with the FDA, the contaminated solution impacted a small percentage of the tissue processed with this lot of solution, requiring us to write-off those contaminated tissues in the fourth quarter of 2020 and impacting our ability to fully meet demand for certain tissues and sizes in the fourth quarter of 2020, the first quarter of 2021, and to a lesser extent the second quarter of 2021.

In addition, if these materials or supplies or changes to them do not receive regulatory approval or are recalled, if the related suppliers and/or their facilities are shut down temporarily or permanently, for any reason, or if the related suppliers are otherwise unable or unwilling to supply us, we may not have sufficient materials or supplies to manufacture our products or process tissues. In addition, we rely on contract manufacturers to manufacture some of our products or to provide additional manufacturing capacity for some products. If these contract manufacturers fail to meet our quality standards or other requirements or if they are unable or unwilling to supply the products, we may not be able to meet demand for these products. Our ability to fully recover all possible losses from these suppliers and contract manufacturers may have practical limitations imposed by factors like industry standard contractual terms or the financial resources of the adverse party.

**We are dependent on single and sole-source suppliers and single facilities.**

Some of the materials, supplies, and services in our product manufacturing or tissue processing, as well as some of our products, are sourced from single- or sole-source suppliers. As a result, our ability to negotiate favorable terms with those suppliers may be limited, and if those suppliers experience operational, financial, quality, or regulatory difficulties, or if those suppliers and/or their facilities refuse to supply us or cease operations temporarily or permanently, we could be forced to cease product manufacturing or tissue processing until the suppliers resume operations, until alternative suppliers could be identified and qualified, or permanently if the suppliers do not resume operations and no alternative suppliers could be identified and qualified. We could also be forced to purchase alternative materials, supplies, or services with unfavorable terms due to diminished bargaining power.

As an example of these risks, in 2019 we lost our supply of handpieces for cardiac laser therapy resulting from a manufacturing location change at our supplier that ultimately required a Premarket Approval ("PMA") supplement and FDA approval before handpiece manufacturing and distribution could resume. Due to these and other supplier issues, we had virtually no supply of handpieces during the first half of 2021 but anticipate resumption of a limited supply during the second half of 2021.

We also conduct all of our own manufacturing operations at three facilities: Austin, Texas for On-X products, Hechingen, Germany for JOTEC products, and Kennesaw, Georgia for all other products. The NEXUS product is solely manufactured by Endospan in Herzelia, Israel, and the AMDS product is solely manufactured by a supplier in Charlotte, North Carolina. If one of these facilities ceases operations temporarily or permanently, for any reason, our business could be substantially disrupted.

**We are dependent on our key personnel.**

Our business and future operating results depend in significant part upon the continued contributions of our key personnel, including qualified personnel with medical device and tissue processing experience, and senior management with experience in the medical device or tissue processing space, some of whom would be difficult to replace. Our business and future operating results, including production at our manufacturing and tissue processing facilities, also depend in significant part on our ability to attract and retain qualified management, operations, processing, marketing, sales, and support personnel. Our facilities are in Kennesaw, Georgia; Austin, Texas; and Hechingen, Germany, where the supply of qualified medical device and tissue processing personnel is limited. Competition for such personnel is significant, and we cannot ensure that we will be successful in attracting or retaining them. We face risks if we lose any key employees to other employers or due to severe illness, death or retirement, if any of our key employees fail to perform adequately, or if we are unable to attract and retain skilled employees. This risk has been exacerbated in the first half of 2021 as the competition for talent in the medical device industry and generally has intensified substantially.

**We continue to evaluate expansion through acquisitions of, or licenses with, investments in, and distribution arrangements with, other companies or technologies, which may carry significant risks.**

One of our growth strategies is to pursue select acquisitions, licensing, or distribution rights with companies or technologies that complement our existing products, services, and infrastructure. In connection with one or more of these transactions, we may:

- Issue additional equity securities that would dilute our stockholders' ownership interest;
- Use cash we may need in the future to operate our business;
- Incur debt, including on terms that could be unfavorable to us or debt we might be unable to repay;
- Structure the transaction resulting in unfavorable tax consequences, such as a stock purchase that does not permit a step-up in basis for the assets acquired;
- Be unable to realize the anticipated benefits of the transaction; or
- Assume material unknown liabilities associated with the acquired business.

**We may not realize all the anticipated benefits of our business development activities.**

As part of our efforts to drive growth by pursuing select acquisition, license, and distribution opportunities that are aligned to our objectives and complement our existing products, services, and infrastructure, we have completed several transactions in recent years and may pursue similar additional transactions in the future. Examples of these activities include the following:

- On December 1, 2017 we acquired JOTEC AG, a Swiss entity that we converted to JOTEC GmbH and subsequently merged with our Swiss acquisition entity, Jolly Buyer Acquisition GmbH and its subsidiaries;
- On September 11, 2019 we entered into various agreements with Endospan, Ltd. ("Endospan"), an Israeli medical device manufacturer (the "Endospan Transaction"). The Endospan Transaction included an exclusive distribution agreement for the NEXUS stent graft system ("NEXUS") in Europe; an agreement ("Endospan Loan") for a secured loan from CryoLife to Endospan; and a security purchase option agreement for CryoLife to purchase all the then outstanding Endospan securities from Endospan's existing securityholders upon FDA approval of NEXUS;
- On September 2, 2020 we acquired 100% of the outstanding shares of Ascyrus Medical LLC ("Ascyrus"), the developer of the Ascyrus Medical Dissection Stent ("AMDS");
- On July 28, 2021 we entered into various agreements with Baxter International, Inc. ("Baxter") and Starch Medical, Inc. ("SMI") related to the sale of our PerClot assets to Baxter and the termination of our existing material agreements with SMI.

Our ability to realize the anticipated business opportunities, growth prospects, cost savings, synergies, and other benefits of these transactions depends on a number of factors including our ability to:

- Leverage our global infrastructure to sell and cross-market the acquired products;
- Drive adoption of NEXUS and AMDS in the European and other markets, including our ability to manage the substantial requirements for NEXUS procedures for product training, implant support, and proctoring;
- Bring acquired products to the U.S. market, including AMDS and the JOTEC products;
- Harness the JOTEC product pipeline and research and development capabilities;
- Obtain regulatory approvals in relevant markets, including our ability to obtain PMA for PerClot, and to obtain Conformité Européene Mark product certification ("CE Mark") for pipeline products and obtain or maintain certification for pipeline and current products at all;
- Execute on development and clinical trial timelines for acquired products;
- Carry, service, and manage significant debt and repayment obligations; and
- Manage the unforeseen risks and uncertainties related to these transactions, including any related to intellectual property rights.

Additionally, our ability to realize the anticipated business opportunities, growth prospects, synergies, and other benefits of the Endospan Transaction depends on a number of additional factors including Endospan's ability to (a) comply with the Endospan Loan and other debt obligations, and avoid an event of default; (b) successfully commercialize NEXUS in markets in and outside of Europe; (c) meet demand for NEXUS; (d) meet quality and regulatory requirements; (e) manage any intellectual property risks and uncertainties associated with NEXUS; and (f) obtain FDA approval of NEXUS.

Many of these factors are outside of our control and any one of them could result in increased costs, decreased revenues, and diversion of management's time and energy. The benefits of these transactions may not be achieved within the anticipated time frame or at all. Any of these factors could negatively impact our earnings per share, decrease or delay the expected accretive effect of the acquisition, and negatively impact the price of our common stock. In addition, if we fail to realize the anticipated benefits of an acquisition, we could experience an interruption or loss of momentum in our existing business activities.

**Significant disruptions of information technology systems or breaches of information security systems could adversely affect our business.**

We rely upon a combination of sophisticated information technology systems as well as traditional recordkeeping to operate our business. In the ordinary course of business, we collect, store, and transmit confidential information (including, but not limited to, information about our business, personal data, intellectual property, and, in some instances, patient data). Our information technology and information security systems and records are potentially vulnerable to security breaches, service interruptions, data loss, or malicious attacks resulting from inadvertent or intentional actions by our

employees, vendors, or other third parties. In addition, due to the COVID-19 pandemic, we have implemented remote work arrangements for some employees, and those employees may use outside technology and systems that are vulnerable to security breaches, service interruptions, data loss or malicious attacks, including by third parties.

As an example of these risks, on November 1, 2019 we were notified that we had become a victim of a business e-mail compromise. During the fourth quarter of 2019, a company email account was compromised by a third-party impersonator and a payment intended for one of our U.S. vendors in the amount of $2.6 million was fraudulently re-directed into an individual bank account controlled by this third-party impersonator. Our cyber-insurance covered all but $25,000 of the unrecovered losses from this compromise.

While we have invested, and continue to invest, in our information technology and information security systems, there can be no assurance that our efforts will prevent security breaches, service interruptions, or data losses. We have limited cyber-insurance coverage that may not cover all possible events, and this insurance is subject to deductibles and coverage limitations. Any security breaches, service interruptions, or data losses could adversely affect our business operations or result in the loss of critical or sensitive confidential information or intellectual property, or in financial, legal, business, and reputational harm to us or allow third parties to gain material, inside information that they may use to trade in our securities.

**Industry Risks**

**Our products and tissues are highly regulated and subject to significant quality and regulatory risks.**

The commercialization of medical devices and processing and distribution of human tissues are highly complex and subject to significant global quality and regulatory risks and as such, we face the following risks:

- Our products and tissues allegedly have caused, and may in the future cause, patient injury, which has exposed, and could in the future expose, us to liability claims that could lead to additional regulatory scrutiny;
- Our manufacturing and tissue processing operations are subject to regulatory scrutiny, inspections and enforcement actions, and regulatory agencies could require us to change or modify our operations or take other action, such as issuing product recalls or holds;
- Regulatory agencies could reclassify, re-evaluate, or suspend our clearances or approvals, or fail, or decline, to issue or reissue our clearances or approvals that are necessary to sell our products and distribute tissues;
- Regulatory and quality requirements are subject to change, which could adversely affect our ability to sell our products or distribute tissues; and
- Adverse publicity associated with our products, processed tissues or our industry could lead to a decreased use of our products or tissues, increased regulatory scrutiny, or product or tissue processing liability claims.

Further, on May 25, 2017 the European Union adopted a new Medical Device Regulation (MDR 2017/745) (“MDR”), which was fully implemented on May 26, 2021. The MDR places stricter requirements on manufacturers and European Notified Bodies regarding, among other things, product classifications and pre- and post-market clinical studies for product clearances and approvals which could result in product reclassifications or the imposition of other regulatory requirements that could delay, impede, or prevent our ability to commercialize existing, improved, or new products in the European Economic Area (“EEA”). Additionally, to the extent the MDR places stricter requirements on manufacturers of custom-made devices, those new requirements could delay, impede, or otherwise impact the availability of our E-xtra DESIGN ENGINEERING products. Finally, COVID-19 has impacted the predictability and timelines associated with the MDR transition.

Since the implementation of the MDR, Notified Bodies must review any proposed changes to determine if they require evaluation under the MDR or if they can still be evaluated under currently held MDD certifications. Our inability to obtain certifications for changes under the transitional provisions of the MDR’s Article 120 or successfully submit proposed changes requiring MDR evaluation will delay implementation of those changes which could adversely impact our ability to obtain or renew certifications, clearances, or approvals for our products.

Finally, we anticipate additional regulatory impact as a result of the United Kingdom's exit from the European Union ("Brexit"). The U.K. Medicines and Healthcare Products Regulatory Agency ("MHRA") has announced that CE Marking will continue to be recognized in the U.K. and certificates issued by EU-recognized Notified Bodies will continue to be valid in the U.K. market until June 30, 2023. Going forward, all devices marketed in the U.K. will require U.K. Conformity Assessed Marks certified by a U.K. Approved Body (the re-designation of the U.K. Notified Body). In 2019 we were informed of the cancellation of notified body services by our former Notified Body for BioGlue and PhotoFix, Lloyd's Register Quality Assurance Limited. Presently, the MHRA and the German competent authority, Regierungspraesidium-Tubingen, have granted us extended grace periods to complete the transfers of our registrations to a new notified body, provided that we meet certain conditions, including the demonstration of adequate progress in the CE Mark certification process with our new Notified Body. If we are delayed or unsuccessful in transferring to a new Notified Body for BioGlue and PhotoFix in the EEA, or if we are otherwise unable to timely meet applicable regulatory requirements, we may be unable to place BioGlue or PhotoFix on the market in the EEA until we resolve the situation.

**Reclassification by the FDA of CryoValve SG pulmonary heart valve ("CryoValve SGPV") may make it commercially infeasible to continue processing the CryoValve SGPV.**

In December 2019 we learned that the FDA is preparing to issue a proposed rule for reclassification of more than minimally manipulated ("MMM") allograft heart valves to Class III medical devices, which could include our CryoValve SGPV. Following a comment period and subsequent publication of any final rule, should the CryoValve SGPV be determined to be MMM, we expect to have approximately thirty months to submit a PMA application, after which the FDA will determine if, and for how long, we may continue to provide these tissues to customers during review of the PMA application. To date, the FDA has not issued such a proposed final rule.

If the FDA ultimately classifies our CryoValve SGPV as a Class III medical device, and if there are delays in obtaining the PMA, if we are unsuccessful in obtaining the PMA, or if the costs associated with these activities are significant, we could decide that the requirements for continued processing of the CryoValve SGPV are too onerous, leading us to discontinue distribution of these tissues.

**We may not be successful in obtaining necessary clinical results or regulatory clearances/approvals for new and existing products and services, and our approved products and services may not achieve market acceptance.**

Our growth and profitability depends in part upon our ability to develop, and successfully introduce, new products and services, or expand upon existing indications, clearances, and approvals, requiring that we invest significant time and resources to obtain new regulatory clearances/approvals, including investment into pre and post-market clinical studies. Although we believe certain products and services in our portfolio or under development may be effective in a particular application, we cannot be certain until we successfully execute on a clinical trial, and the results we obtain from pre and post-market clinical studies may be insufficient for us to obtain or maintain any required regulatory approvals or clearances.

We are currently seeking regulatory approval for BioGlue in China, where the Chinese regulatory body has made additional requests related to the application. If we have not satisfied the regulator's requests and obtained approval by May 2022, the pending application will expire and no longer be eligible for allowance, requiring the Company to restart the approval process. Each of these trials, studies, and approvals is subject to the risks outlined herein.

Each of our trials, studies, and approvals is subject to the risks outlined herein.

We cannot give assurance that regulatory agencies will clear or approve these products and services or indications, or any new products and services or new indications, on a timely basis, if ever, or that the products and services or new indications will adequately meet the requirements of the market or achieve market acceptance. Pre- and post-market clinical studies may also be delayed or halted due to many factors beyond our control.

If we are unable to successfully complete the development of a product, service, or application, or if we determine for any reason not to complete development or obtain regulatory approval or clearance of any product, service, or application, particularly in instances when we have expended significant capital, this could materially, adversely affect our financial performance. Research and development efforts are time consuming and expensive, and we cannot be certain that these efforts will lead to commercially successful products or services. Even the successful commercialization of a new product or service in the medical industry can be characterized by slow growth and high costs associated with marketing, under-utilized production capacity, and continuing research and development and education costs, among other things. The introduction of new products or services may require significant physician training or years of clinical evidence in order to gain acceptance in the medical community.

**Regulatory enforcement activities regarding Ethylene Oxide, which is used to sterilize some of our products and components, could have a material, adverse impact on us.**

Some of our products, including our On-X products, are sterilized using Ethylene Oxide ("EtO"). Although we have a small-scale EtO facility in Austin, Texas, we rely primarily on large-scale EtO facilities to sterilize our products. In addition, some of our suppliers use, or rely upon third parties to use, EtO to sterilize some of our product components. Concerns about the release of EtO into the environment at unsafe levels have led to increased activism and lobbying as well as various regulatory enforcement activities against EtO facilities, including closures and temporary closures, as well as proposals increasing regulations related to EtO. The number of EtO facilities in the U.S. is limited, and any permanent or temporary closures or disruption to their operations could delay, impede, or prevent our ability to commercialize our products. In addition, any regulatory enforcement activities against us for our use of EtO could result in financial, legal, business, and reputational harm to us.

**We may be subject to fines, penalties, and other sanctions if we are deemed to be promoting the use of our products for unapproved, or off-label, uses.**

Our business and future growth depend on the continued use of our products for approved uses. Generally, regulators contend that, unless our products are approved or cleared by a regulatory body for alternative uses, we may not make claims about the safety or effectiveness of our products or promote them for such uses. Such limitations present a risk that law enforcement could allege that the nature and scope of our sales, marketing, or support activities, though designed to comply with all regulatory requirements, constitute unlawful promotion of our products for an unapproved use. We also face the risk that such authorities might pursue enforcement based on past activities that we discontinued or changed. Investigations concerning the promotion of unapproved uses and related issues are typically expensive, disruptive, and burdensome and generate negative publicity. If our promotional activities are found to be in violation of the law, we may face significant fines and penalties and may be required to substantially change our sales, promotion, grant, and educational activities. In addition, we or our officers could be excluded from participation in government healthcare programs such as Medicare and Medicaid.

**Healthcare policy changes may have a material, adverse effect on us.**

In response to perceived increases in healthcare costs in recent years, there have been, and continue to be, proposals by the governmental authorities, third-party payors, and elected office holders and candidates to control these costs and, more generally, to reform the healthcare systems. Additional uncertainty is anticipated particularly in light of the recent presidential election in the United States and the impact the results of the presidential and congressional elections may have on U.S. law relating to the healthcare industry. Many U.S. healthcare laws, such as the Affordable Care Act, are complex, subject to change, and dependent on interpretation and enforcement decisions from government agencies with broad discretion. The application of these laws to us, our customers, or the specific services and relationships we have with our customers is not always clear. Our failure to anticipate accurately any changes to, or the repeal or invalidation of all or part of the Affordable Care Act and similar or future laws and regulations, or our failure to comply with them, could create liability for us, result in adverse publicity and negatively affect our business, results of operations, and financial condition. Further, the growth of our business, results of operations and financial condition rely, in part, on customers in the healthcare industry that receive substantial revenues from governmental and other third-party payer programs. A reduction or less than expected increase in government funding for these programs or a change in reimbursement or allocation methodologies could negatively affect our customers' businesses and, in turn, negatively impact our business, results of operations and financial condition. Any changes that lower reimbursement for our products or reduce medical procedure volumes, however, could adversely affect our business and profitability.

**Legal, Quality, and Regulatory Risks**

**We are subject to various U.S. and international bribery, anti-kickback, false claims, privacy, transparency, and similar laws, any breach of which could cause a material, adverse effect on our business, financial condition, and profitability.**

Our relationships with physicians, hospitals, and other healthcare providers are subject to scrutiny under various U.S. and international bribery, anti-kickback, false claims, privacy, transparency, and similar laws, often referred to collectively as "healthcare compliance laws." Healthcare compliance laws are broad, sometimes ambiguous, complex, and subject to change and changing interpretations. Possible sanctions for violation of these healthcare compliance laws include fines, civil and criminal penalties, exclusion from government healthcare programs, and despite our compliance efforts, we face the risk of an enforcement activity or a finding of a violation of these laws.

We have entered into consulting and product development agreements with healthcare professionals or healthcare organizations, including some who may order our products or make decisions to use them. We have also adopted the AdvaMed Code of Conduct and the MedTech Europe Code of Ethical Business Practice, which govern our relationships with healthcare professionals to bolster our compliance with healthcare compliance law. While our relationships with healthcare professionals and organizations are structured to comply with such laws and we conduct training sessions on these laws and Codes, it is possible that enforcement authorities may view our relationships as prohibited arrangements that must be restructured or for which we would be subject to other significant civil or criminal penalties or debarment. In any event, any enforcement review of or action against us as a result of such review, regardless of outcome, could be costly and time consuming. Additionally, we cannot predict the impact of any changes in or interpretations of these laws, whether these changes will be retroactive or will have effect on a going-forward basis only.

**The implementation of new data privacy laws, including the General Data Protection Regulation in the European Union in May 2018, could adversely affect our business.**

An increasing number of federal, state, and foreign data privacy laws and regulations, which can be enforced by private parties or governmental entities, have been or are being promulgated and are constantly evolving. These laws and regulations may include new requirements for companies that receive or process an individual's personal data (including employees), which increases our operating costs and requires significant management time and energy. Many of these laws and regulations, including the European Union's General Data Protection Regulation ("GDPR") also include significant penalties for noncompliance. Although our personal data practices, policies, and procedures are intended to comply with GDPR and other data privacy laws and regulations, there can be no assurance that regulatory or enforcement authorities will view our arrangements as being in compliance with applicable laws, or that one or more of our employees or agents will not disregard the rules we have established. Any privacy related government enforcement activities may be costly, result in negative publicity, or subject us to significant penalties.

**Our business could be negatively impacted as a result of shareholder activism.**

In recent years, shareholder activists have become involved in numerous public companies. Shareholder activists from time to time propose to involve themselves in the governance, strategic direction, and operations of a company. Such involvement may disrupt our business and divert the attention of our management, and any perceived uncertainties as to our future direction resulting from such involvement could result in the loss of business opportunities, be exploited by our competitors, cause concern for our current or potential customers, cause significant fluctuations in stock price, or make it more difficult to attract and retain qualified personnel and business partners. We have had investors who we believe to be activist investors with respect to some of their positions recently invest in our stock.

**Some of our products and technologies are subject to significant intellectual property risks and uncertainty.**

We own trade secrets, patents, patent applications, and licenses relating to our technologies, which we believe provide us with important competitive advantages. We cannot be certain that we will be able to maintain our trade secrets, that our pending patent applications will issue as patents, or that no one will challenge the validity or enforceability of any patent that we own or license. Competitors may independently develop our proprietary technologies or design non-infringing alternatives to patented inventions. We do not control the maintenance, prosecution, enforcement, or strategy for in-licensed intellectual property and as such are dependent in part on the owners of these rights to maintain their viability. Their failure to do so could significantly impair our ability to exploit those technologies. Additionally, our technologies, products, or services could infringe intellectual property rights owned by others, or others could infringe our intellectual property rights.

If we become involved in an intellectual property disputes, the costs could be expensive, and if we were to lose or decide to settle, the amounts or effects of the settlement or award by a tribunal could be costly.

**Risks Relating to Our Indebtedness**

**The agreements governing our indebtedness contain restrictions that limit our flexibility in operating our business.**

The agreements governing our indebtedness contain, and any instruments governing future indebtedness of ours may contain, covenants that impose significant operating and financial restrictions on us and certain of our subsidiaries, including (subject in each case to certain exceptions) restrictions or prohibitions on our and certain of our subsidiaries' ability to, among other things:

- Incur or guarantee additional debt or create liens on certain assets;
- Deviate from a minimum liquidity of at least $12.0 million as of the last day of any of the first three quarters of 2021 when our Revolving Credit Facility is drawn in excess of 25% of the amount available as of the last day of any fiscal quarter during that period (currently $7.5 million);
- Pay dividends on or make distributions of our share capital, including repurchasing or redeeming capital stock, or make other restricted payments, including restricted junior payments;
- Enter into agreements that restrict our subsidiaries' ability to pay dividends to us, repay debt owed to us or our subsidiaries, or make loans or advances to us or our other subsidiaries;
- Comply with certain financial ratios set forth in the agreement;
- Enter into certain transactions with our affiliates including any transaction or merger or consolidation, liquidation, winding-up, or dissolution; convey, sell, lease, exchange, transfer or otherwise dispose of all or any part of our business, assets or property; or sell, assign, or otherwise dispose of any capital stock of any subsidiary;
- Enter into certain rate swap transactions, basis swaps, credit derivative transactions, and other similar transactions, whether relating to interest rates, commodities, investments, securities, currencies, or any other relevant measure, or transactions of any kind subject to any form of master purchase agreement governed by the International Swaps and Derivatives Association, Inc., any International Foreign Exchange Master Agreement, or any other master agreement;
- Amend, supplement, waive, or otherwise modify our or our subsidiaries organizational documents in a manner that would be materially adverse to the interests of the lenders, or change or amend the terms of documentation regarding junior financing in a manner that would be materially adverse to the interests of the lenders;
- Make changes to our and our subsidiaries' fiscal year without notice to the administrative agent under the agreement;
- Enter into agreements which restrict our ability to incur liens;
- Engage in any line of business substantially different from that in which we are currently engaged; and
- Make certain investments, including strategic acquisitions or joint ventures.

**Our indebtedness could adversely affect our ability to raise additional capital to fund operations and limit our ability to react to changes in the economy or our industry.**

Our current and future levels of indebtedness could adversely affect our ability to raise additional capital, limit our operational flexibility, and hinder our ability to react to changes in the economy or our industry. It may also limit our ability to borrow money, require us to dedicate substantial portions of our cash flow to repayment, and expose us to increased interest rate fluctuation risk as most of our borrowings are at a variable rate of interest.

**We have pledged substantially all of our U.S. assets as collateral under our existing Credit Agreement. If we default on the terms of such credit agreements and the holders of our indebtedness accelerate the repayment of such indebtedness, there can be no assurance that we will have sufficient assets to repay our indebtedness.**

A failure to comply with the covenants in our existing Credit Agreement could result in an event of default, which, if not cured or waived, could have a material, adverse effect on our business, financial condition, and profitability. In the event of any such default, the holders of our indebtedness:

- Will not be required to lend any additional amounts to us;
- Could elect to declare all indebtedness outstanding, together with accrued and unpaid interest and fees, to be due and payable and terminate all commitments to extend further credit, if applicable; or
- Could require us to apply all of our available cash to repay such indebtedness.

If we are unable to repay those amounts, the holders of our secured indebtedness could proceed against their secured collateral. If our indebtedness were to be accelerated, there can be no assurance that our assets would be sufficient to repay such indebtedness in full.

**Risks Related to Ownership of our Common Stock**

**We do not anticipate paying any dividends on our common stock for the foreseeable future.**

In December 2015 our Board of Directors discontinued dividend payments on our common stock for the foreseeable future. If we do not pay cash dividends, our shareholders may receive a return on their investment in our common stock only through appreciation of shares of our common stock that they own. In addition, restrictions in our credit facility limit our ability to pay future dividends.

**Provisions of Florida law and anti-takeover provisions in our organizational documents may discourage or prevent a change of control, even if an acquisition would be beneficial to shareholders, which could affect our share price adversely and prevent attempts by shareholders to remove current management.**

We are subject to the Florida affiliated transactions statute, which generally requires approval by the disinterested directors or supermajority approval by shareholders for "affiliated transactions" between a corporation and an "interested stockholder." Additionally, our organizational documents contain provisions that restrict persons who may call shareholder meetings, allow the issuance of blank-check preferred stock without the vote of shareholders, and allow the Board of Directors to fill vacancies and fix the number of directors. These provisions of Florida law and our articles of incorporation and bylaws could prevent attempts by shareholders to remove current management, prohibit or delay mergers or other changes of control transactions, and discourage attempts by other companies to acquire us, even if such a transaction would be beneficial to our shareholders.

**General Risk Factors**

**Our key growth areas may not generate anticipated benefits.**

Our strategic plan is focused on four areas – new products, new indications, global expansion, and business development – to drive growth and/or increase the size of our total addressable markets, primarily in the cardiac and vascular surgery segment, but we cannot be certain that these strategies will ultimately drive business expansion and enhance shareholder value.

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

(c) The following table provides information about purchases by us during the three months ended June 30, 2021 of equity securities that are registered by us pursuant to Section 12 of the Securities Exchange Act of 1934:

| Period | Total Number of Common Shares and Common Stock Units Purchased | Average Price Paid per Common Share | Total Number of Common Shares Purchased as Part of Publicly Announced Plans or Programs | Dollar Value of Common Shares That May Yet Be Purchased Under the Plans or Programs |
|---|---|---|---|---|
| 04/01/21 - 04/30/21 | -- | $ -- | -- | $ -- |
| 05/01/21 - 05/31/21 | 650 | 28.91 | -- | -- |
| 06/01/21 - 06/30/21 | -- | -- | -- | -- |
| **Total** | **650** | $ **28.91** | -- | $ -- |

The common shares purchased during the three months ended June 30, 2021 were tendered to us in payment of taxes on stock compensation and were not part of a publicly announced plan or program.

Under our Credit Agreement, we are prohibited from repurchasing our common stock, except for the repurchase of stock from our employees or directors when tendered in payment of taxes or the exercise price of stock options, upon the satisfaction of certain requirements.

**Item 3. Defaults Upon Senior Securities.**

None.

**Item 4. Mine Safety Disclosures.**

Not applicable.

**Item 5. Other Information.**

None.

**Item 6. Exhibits.**

The exhibit index can be found below.

| Exhibit Number | Description |
|---|---|
| 2.1 | Securities Purchase Agreement, dated September 2, 2020, by and among CryoLife, Inc., Ascyrus Medical LLC, the securityholders of Ascyrus Medical LLC and the Securityholder Representative (as defined therein) (Incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed September 2, 2020.) |
| 3.1 | Amended and Restated Articles of Incorporation of CryoLife, Inc. (Incorporated herein by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed July 31, 2020.) |
| 3.2 | Amended and Restated By-Laws of CryoLife, Inc. (Incorporated herein by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed February 22, 2018.) |
| 10.1* | Third Amendment to Credit and Guarantee Agreement between CryoLife, Inc. and Deutsche Bank AG New York Branch as administrative agent and collateral agent, dated June 2, 2021. |
| 10.2 | Asset Purchase Agreement dated July 28, 2021, by among CryoLife, Inc., and Baxter Healthcare Company. (Incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed July 29, 2021.) |
| 31.1* | Certification by J. Patrick Mackin pursuant to section 302 of the Sarbanes-Oxley Act of 2002. |
| 31.2* | Certification by D. Ashley Lee pursuant to section 302 of the Sarbanes-Oxley Act of 2002. |
| 32** | Certification Pursuant To 18 U.S.C. Section 1350, As Adopted Pursuant To Section 906 Of The Sarbanes-Oxley Act Of 2002. |
| 101.INS* | XBRL Instance Document |
| 101.SCH* | XBRL Taxonomy Extension Schema Document |
| 101.CAL* | XBRL Taxonomy Extension Calculation Linkbase Document |
| 101.DEF* | XBRL Taxonomy Extension Definition Linkbase |
| 101.LAB* | XBRL Taxonomy Extension Label Linkbase Document |
| 101.PRE* | XBRL Taxonomy Extension Presentation Linkbase Document |
| 104 | Cover Page Interactive Data File – formatted as Inline XBRL and contained in Exhibit 101 |

* Filed herewith.

** Furnished herewith.

† Portions of the exhibit have been omitted.

**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.

CRYOLIFE, INC.
(Registrant)

/s/ J. PATRICK MACKIN
---
J. PATRICK MACKIN
Chairman, President, and
Chief Executive Officer
(Principal Executive Officer)

July 30, 2021
---
DATE

/s/ D. ASHLEY LEE
---
D. ASHLEY LEE
Executive Vice President,
Chief Operating Officer, and
Chief Financial Officer
(Principal Financial and
Accounting Officer)

**Exhibit 10.1**

THIRD AMENDMENT TO CREDIT AND GUARANTY AGREEMENT

THIS THIRD AMENDMENT TO CREDIT AND GUARANTY AGREEMENT is dated as of June 2, 2021 (this "Third Amendment"), and entered into by and among CryoLife, Inc., a Florida corporation (the "Borrower"), the Guarantor Subsidiaries party hereto, the Lenders party hereto and Deutsche Bank AG New York Branch, as Administrative Agent.

**RECITALS:**

**WHEREAS**, reference is hereby made to the Credit and Guaranty Agreement, dated as of December 1, 2017 (as amended by that certain First Amendment to Credit and Guaranty Agreement, dated as of October 26, 2018, as further amended by that certain Second Amendment to Credit and Guaranty Agreement, dated as of April 29, 2020, and as further amended, restated, supplemented and/or otherwise modified from time to time prior to the Third Amendment Effective Date referred to below, the "Credit Agreement"), among the Borrower, the Guarantor Subsidiaries, the Lenders, the Administrative Agent, the Collateral Agent and the other parties named therein (capitalized terms used but not defined herein having the meaning provided in the Credit Agreement as amended by this Third Amendment);

**WHEREAS**, the Borrower wishes to amend the Credit Agreement to (i) extend the Term Loan Maturity Date and the Credit Commitment Termination Date and (ii) make certain other amendments, as more fully provided herein;

**WHEREAS**, pursuant to Section 10.5 of Credit Agreement, certain of the amendments set forth in this Third Amendment require the consent of all Lenders affected by such amendments and pursuant to Section 2.23 of the Credit Agreement, the Borrower may replace any Lender that does not consent to such amendments by causing such Lender to assign all of its rights and obligations under the Credit Agreement to one or more assignees; and

**WHEREAS**, pursuant to Sections 2.23 and 10.5 of the Credit Agreement, the Borrower, certain of the Lenders party hereto constituting no less than (i) all of the Lenders affected by the terms of this Third Amendment and the transactions contemplated hereby (other than the Third Amendment Non-Consenting Lenders (as defined below)) and (ii) the Required Lenders (determined immediately prior to giving effect to this Third Amendment) and the Administrative Agent agree to extend to Revolving Credit Commitment Termination Date and the Term Loan Maturity Date and make certain other amendments as set forth herein, in each case subject to the terms and conditions hereof;

**NOW, THEREFORE**, in consideration of the premises and agreements, provisions and covenants herein contained, the parties hereto agree as follows:

**A. Amendments to Credit Agreement**. On the Third Amendment Effective Date, the Credit Agreement is hereby amended as follows:

(i) The definition of "**Applicable Margin**" in Section 1.1 of the Credit Agreement is hereby amended by amending and restating clause (a) thereof in its entirety as follows:

"**Applicable Margin**" means:

(a) with respect to Initial Term Loans, (i) prior to the First Amendment Effective Date, a percentage per annum equal to (x) for Eurodollar Rate Loans, 4.00% and (y) for Base Rate Loans, 3.00%, (ii) on and after the First Amendment Effective Date and prior to the Third Amendment Effective Date, a percentage per annum equal to (x) for Eurodollar Rate Loans, 3.25% and (y) for Base Rate Loans, 2.25% and (iii) on and after the Third Amendment Effective Date, a percentage per annum equal to (x) for Eurodollar Rate Loans, 3.50% and (y) for Base Rate Loans, 2.50%;

(ii) The definition of "**Interest Period**" in Section 1.1 of the Credit Agreement is hereby amended by deleting the text "two-," therein:

(iii) Section 1.1 of the Credit Agreement is hereby further amended by adding the following definitions in proper alphabetical order:

(iv) Section 1.1 of the Credit is hereby further amended by amending and restating the below listed defined terms in their entirety:

"**Bail-In Action**" means the exercise of any Write-Down and Conversion Powers by the applicable Resolution Authority in respect of any liability of an Affected Financial Institution.

"**Bail-In Legislation**" means (a) with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law, regulation rule or requirement for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule and (b) with respect to the United Kingdom, Part I of the United Kingdom Banking Act 2009 (as amended from time to time) and any other law, regulation or rule applicable in the United Kingdom relating to the resolution of unsound or failing banks, investment firms or other financial institutions or their affiliates (other than through liquidation, administration or other insolvency proceedings).

"**Revolving Credit Commitment Termination Date**" means the earliest to occur of (a) June 1, 2025, as extended in accordance with this Agreement from time to time solely with respect to any Extended Revolving Credit Commitments, as applicable; *provided* that if any Convertible Senior Notes remain outstanding on December 31, 2024, the Revolving Credit Commitment Termination Date shall be December 31, 2024 or such other date falling on the earlier of (x) 182 days prior to the then applicable maturity date in respect of the Convertible Senior Notes and (y) June 1, 2025, (b) the date the Revolving Credit Commitments are permanently reduced to zero pursuant to Section 2.13(b), and (c) the date of the termination of the Revolving Credit Commitments pursuant to Section 8.1.

"**Term Loan Maturity Date**" means (a) for the Initial Term Loans, the earlier of (i) June 1, 2027, as extended in accordance with this Agreement from time to time; *provided* that if any Convertible Senior Notes remain outstanding on April 1, 2025, the Term Loan Maturity Date shall be April 1, 2025 or such other date falling on the earlier of (x) 91 days prior to the then applicable maturity date in respect of the Convertible Senior Notes or (y) June 1, 2027 (or as extended in accordance with this Agreement from time to time), and (ii) the date that all such Initial Term Loans will become due and payable in full hereunder, whether by acceleration or otherwise; (b) for any Incremental Term Loans, the earlier of (i) the date identified in the applicable Incremental Amendment, as extended in accordance with this Agreement from time to time, and (ii) the date that all such Incremental Term Loans will become due and payable in full hereunder, whether by acceleration or otherwise; (c) for any Extended Term Loans, the earlier of (i) the final maturity date as specified in the applicable Extension Amendment and (ii) the date such Extended Term Loans will become due and payable in full hereunder, whether by acceleration or otherwise; and (d) with respect to any Refinancing Term Loans, the earlier of (i) the final maturity date as specified in the applicable Refinancing Amendment and (ii) the date such Refinancing Term Loans will become due and payable in full hereunder, whether by acceleration or otherwise.

"**Write-Down and Conversion Powers**" means, (a) with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write- down and conversion powers are described in the EU Bail-In Legislation Schedule, and (b) with respect to the United Kingdom, any powers of the applicable Resolution Authority under the Bail-In Legislation to cancel, reduce, modify or change the form of a liability of any UK Financial Institution or any contract or instrument under which that liability arises, to convert all or part of that liability into shares, securities or obligations of that person or any other person, to provide that any such contract or instrument is to have effect as if a right had been exercised under it or to suspend any obligation in respect of that liability or any of the powers under that Bail-In Legislation that are related to or ancillary to any of those powers.

(v) Section 1.1 of the Credit Agreement is hereby further amended by adding the following definitions in appropriate alphabetical order:

"**Affected Financial Institution**" means (a) any EEA Financial Institution or (b) any UK Financial Institution.

"**Convertible Senior Notes**" means the 4.25% convertible senior notes issued by the Borrower on June 18, 2020 in an aggregate principal amount of $100,000,000 with a maturity date of July 1, 2025

"**Resolution Authority**" means an EEA Resolution Authority or, with respect to any UK Financial Institution, a UK Resolution Authority.

"**Third Amendment**" shall mean that certain Third Amendment to Credit and Guaranty Agreement, dated as of June 2, 2021, among the Borrower, the Guarantor Subsidiaries, the Administrative Agent and the Lenders party thereto.

"**Third Amendment Effective Date**" shall have the meaning provided in the Third Amendment.

"**Third Amendment Lead Arranger**" means DBSI in its capacity as lead arranger in respect of the Third Amendment.

"**UK Financial Institution**" means any BRRD Undertaking (as such term is defined under the PRA Rulebook (as amended form time to time) promulgated by the United Kingdom Prudential Regulation Authority) or any person falling within IFPRU 11.6 of the FCA Handbook (as amended from time to time) promulgated by the United Kingdom Financial Conduct Authority, which includes certain credit institutions and investment firms, and certain affiliates of such credit institutions or investment firms.

"**UK Resolution Authority**" means the Bank of England or any other public administrative authority having responsibility for the resolution of any UK Financial Institution.

(vi) Section 2.11(d) of the Credit Agreement is hereby amended by deleting the text "the six month anniversary of the First Amendment Effective Date" and inserting the text "the six month anniversary of the Third Amendment Effective Date" in lieu thereof.

(vii) Section 2.18(b) of the Credit Agreement is hereby amended by deleting said Section in its entirety and inserting the following text in lieu thereof:

"(b) Benchmark Replacement Setting. Notwithstanding anything to the contrary herein or in any other Credit Document:

(i) On March 5, 2021 the Financial Conduct Authority ("**FCA**"), the regulatory supervisor of USD LIBOR's administrator ("**IBA**"), announced in a public statement the future cessation or loss of representativeness of overnight/Spot Next, 1-month, 3-month, 6-month and 12-month USD LIBOR tenor settings. On the earlier of (i) the date that all Available Tenors of USD LIBOR have either permanently or indefinitely ceased to be provided by IBA or have been announced by the FCA pursuant to public statement or publication of information to be no longer representative and (ii) the Early Opt-in Effective Date, if the then-current Benchmark is USD LIBOR, the Benchmark Replacement will replace such Benchmark for all purposes hereunder and under any Loan Document in respect of any setting of such Benchmark on such day and all subsequent settings without any amendment to, or further action or consent of any other party to this Agreement or any other Loan Document. If the Benchmark Replacement is Daily Simple SOFR, all interest payments will be payable on a quarterly basis.

(ii) Upon the occurrence of a Benchmark Transition Event, the Benchmark Replacement will replace the then-current Benchmark for all purposes hereunder and under any Loan Document in respect of any Benchmark setting at or after 5:00 p.m. on the fifth (5th) Business Day after the date notice of such Benchmark Replacement is provided to the Lenders without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document so long as the Administrative Agent has not received, by such time, written notice of objection to such Benchmark Replacement from Lenders comprising the Required Lenders of each Class. At any time that the administrator of the then-current Benchmark has permanently or indefinitely ceased to provide such Benchmark or such Benchmark has been announced by the regulatory supervisor for the administrator of such Benchmark pursuant to public statement or publication of information to be no longer representative of the underlying market and economic reality that such Benchmark is intended to measure and that representativeness will not be restored, the Borrower may revoke any request for a borrowing of, conversion to or continuation of Loans to be made, converted or continued that would bear interest by reference to such Benchmark until the Borrower's receipt of notice from the Administrative Agent that a Benchmark Replacement has replaced such Benchmark, and, failing that, the Borrower will be deemed to have converted any such request into a request for a borrowing of or conversion to ABR Loans. During the period referenced in the foregoing sentence, the component of ABR based upon the Benchmark will not be used in any determination of ABR.

(iii) In connection with the implementation and administration of a Benchmark Replacement, the Administrative Agent will have the right to make Benchmark Replacement Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Benchmark Replacement Conforming Changes will become effective without any further action or consent of any other party to this Agreement.

(iv) The Administrative Agent will promptly notify the Borrower and the Lenders of (i) the implementation of any Benchmark Replacement and (ii) the effectiveness of any Benchmark Replacement Conforming Changes. Any determination, decision or election that may be made by the Administrative Agent or, if applicable, any Lender (or group of Lenders) pursuant to this Section 2.18(b), including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any

action, will be conclusive and binding absent manifest error and may be made in its or their sole discretion and without consent from any other party hereto, except, in each case, as expressly required pursuant to this Section 2.18(b).

(v) At any time (including in connection with the implementation of a Benchmark Replacement), (i) if the then-current Benchmark is a term rate (including Term SOFR or USD LIBOR), then the Administrative Agent may remove any tenor of such Benchmark that is unavailable or non-representative for Benchmark (including Benchmark Replacement) settings and (ii) the Administrative Agent may reinstate any such previously removed tenor for Benchmark (including Benchmark Replacement) settings.

(vi) As used in this Section 2.18(b):

(1) "**Available Tenor**" means, as of any date of determination and with respect to the then-current Benchmark, as applicable, (x) if the then-current Benchmark is a term rate, any tenor for such Benchmark that is or may be used for determining the length of an Interest Period or (y) otherwise, any payment period for interest calculated with reference to such Benchmark, as applicable, pursuant to this Agreement as of such date.

(2) "**Benchmark**" means, initially, USD LIBOR; *provided* that if a replacement of the Benchmark has occurred pursuant to this Section 2.18(b) titled "Benchmark Replacement Setting", then "Benchmark" means the applicable Benchmark Replacement to the extent that such Benchmark Replacement has replaced such prior benchmark rate. Any reference to "Benchmark" shall include, as applicable, the published component used in the calculation thereof.

(3) "**Benchmark Replacement**" means, for any Available Tenor: (A) for purposes of clause (i) of this Section 2.18(b), the first alternative set forth below that can be determined by the Administrative Agent: (a) the sum of: (i) Term SOFR and (ii) 0.11448% (11.448 basis points) for an Available Tenor of one-month's duration, 0.26161% (26.161 basis points) for an Available Tenor of three-months' duration, and 0.42826% (42.826 basis points) for an Available Tenor of six-months' duration, or (b) the sum of: (i) Daily Simple SOFR and (ii) the spread adjustment selected or recommended by the Relevant Governmental Body for the replacement of the tenor of USD LIBOR with a SOFR-based rate having approximately the same length as the interest payment period specified in clause (i) of this Section 2.18(b); and (B) for purposes of clause (ii) of this Section 2.18(b), the sum of (a) the alternate benchmark rate and (b) an adjustment (which may be a positive or negative value or zero), in each case, that has been selected by the Administrative Agent and the Borrower as the replacement for such Available Tenor of such Benchmark giving due consideration to any evolving or then-prevailing market convention, including any applicable recommendations made by the Relevant Governmental Body, for U.S. dollar-denominated syndicated credit facilities at such time;

*provided* that, if the Benchmark Replacement as determined pursuant to clause (A) or (B) above would be less than the Floor, the Benchmark Replacement will be deemed to be the Floor for the purposes of this Agreement and the other Loan Documents.

(4) "**Benchmark Replacement Conforming Changes**" means, with respect to any Benchmark Replacement, any technical, administrative or operational changes (including changes to the definition of "ABR," the definition of "Business Day," the definition of "Interest Period," timing and frequency of determining rates and making payments of interest, timing of borrowing requests or prepayment, conversion or continuation notices, the applicability and length of lookback periods, the applicability of breakage provisions, and other technical, administrative or operational matters) that the Administrative Agent decides may be appropriate to reflect the adoption and implementation of such Benchmark Replacement and to permit the administration thereof by the Administrative Agent in a manner substantially consistent with market practice (or, if the Administrative Agent decides that adoption of any portion of such market practice is not administratively feasible or if the Administrative Agent determines that no market practice for the administration of such Benchmark Replacement exists, in such other manner of administration as the Administrative Agent decides is reasonably necessary in connection with the administration of this Agreement and the other Loan Documents).

(5) "**Benchmark Transition Event**" means, with respect to any then-current Benchmark other than USD LIBOR, the occurrence of a public statement or publication of information by or on behalf of the administrator of the then-current Benchmark, the regulatory supervisor for the administrator of such Benchmark, the Board of Governors of the Federal Reserve System, the Federal Reserve Bank of New York, an insolvency official with jurisdiction over the administrator for such Benchmark, a resolution authority

with jurisdiction over the administrator for such Benchmark or a court or an entity with similar insolvency or resolution authority over the administrator for such Benchmark, announcing or stating that such administrator has ceased or will cease on a specified date to provide all Available Tenors of such Benchmark, permanently or indefinitely; *provided* that, at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark or (b) all Available Tenors of such Benchmark are or will no longer be representative of the underlying market and economic reality that such Benchmark is intended to measure and that representativeness will not be restored.

(6) "**Daily Simple SOFR**" means, for any day, SOFR, with the conventions for this rate (which will include a lookback) being established by the Administrative Agent in accordance with the conventions for this rate recommended by the Relevant Governmental Body for determining "Daily Simple SOFR" for syndicated business loans; *provided* that if the Administrative Agent decides that any such convention is not administratively feasible for the Administrative Agent, then the Administrative Agent may establish another convention in its reasonable discretion.

(7) "**Early Opt-in Effective Date**" means, with respect to any Early Opt-in Election, the sixth (6th) Business Day after the date notice of such Early Opt-in Election is provided to the Lenders, so long as the Administrative Agent has not received, by 5:00 p.m. (New York City time) on the fifth (5th) Business Day after the date notice of such Early Opt-in Election is provided to the Lenders, written notice of objection to such Early Opt-in Election from Lenders comprising the Required Lenders.

(8) "**Early Opt-in Election**" means the occurrence of: (A) a notification by the Administrative Agent to (or the request by the Borrower to the Administrative Agent to notify) each of the other parties hereto that at least five currently outstanding U.S. dollar-denominated syndicated credit facilities at such time contain (as a result of amendment or as originally executed) a SOFR-based rate (including SOFR, a term SOFR or any other rate based upon SOFR) as a benchmark rate (and such syndicated credit facilities are identified in such notice and are publicly available for review), and (B) the joint election by the Administrative Agent and the Borrower to trigger a fallback from USD LIBOR and the provision by the Administrative Agent of written notice of such election to the Lenders.

(9) "**Floor**" means the benchmark rate floor, if any, provided in this Agreement initially (as of the execution of this Agreement, the modification, amendment or renewal of this Agreement or otherwise) with respect to USD LIBOR.

(10) "**Relevant Governmental Body**" means the Board of Governors of the Federal Reserve System or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Board of Governors of the Federal Reserve System or the Federal Reserve Bank of New York, or any successor thereto.

(11) "**SOFR**" means a rate per annum equal to the secured overnight financing rate for such Business Day published by the Federal Reserve Bank of New York (or a successor administrator of the secured overnight financing rate) on the website of the Federal Reserve Bank of New York, currently at http://www.newyorkfed.org (or any successor source for the secured overnight financing rate identified as such by the administrator of the secured overnight financing rate from time to time).

(12) "**Term SOFR**" means, for the applicable corresponding tenor, the forward-looking term rate based on SOFR that has been selected or recommended by the Relevant Governmental Body.

(13) "**USD LIBOR**" means the London interbank offered rate for U.S. dollars.

(vii) Section 10.25 of the Credit Agreement is hereby amended by deleting said Section in its entirety and inserting the following text in lieu thereof:

"**10.25. Acknowledgement and Consent to Bail-In of Affected Financial Institutions.** Notwithstanding anything to the contrary in any Credit Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any Lender that is an Affected Financial Institution arising under any Credit Document, to the extent such liability is unsecured, may be subject to the write-down and conversion powers of the applicable Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by the applicable Resolution Authority to any such liabilities arising hereunder which may be payable to it by any Lender that is an Affected Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable: (i) a reduction in full or in part or cancellation of any such liability; (ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such Affected Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Credit Document; or (iii) the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of the applicable Resolution Authority."

**B. Conditions Precedent.** This Third Amendment shall become effective as of the first date (the "Third Amendment Effective Date") when each of the conditions set forth in this Section B shall have been satisfied:

1. The Administrative Agent shall have received duly executed counterparts hereof that, when taken together, bear the signatures of (a) (i) the Borrower, (ii) each of the Guarantor Subsidiaries, (iii) the Administrative Agent, (iv) each of the Revolving Lenders, (v) each Lender holding Initial Term Loans (other than a Third Amendment Non-Consenting Lender (as defined below)), (vi) any Person that acquires any Initial Term Loans from any Third Amendment Non-Consenting Lender as contemplated by Section B.7 below (that together with each Person described in clause (v) constitute all of the Lenders affected by the terms of this Third Amendment and the transactions contemplated hereby) and (b) the Required Lenders (determined immediately prior to giving effect to this Third Amendment).

2. The Borrower shall have (a) paid to the Administrative Agent, for the ratable account of each Lender (other than a Third Amendment Non-Consenting Lender), an amendment fee in an amount equal to 0.25% of the aggregate amount of the outstanding Loans and unutilized Commitments held by such Lender immediately after giving effect to this Third Amendment (including the assignments contemplated by Section B.7), (b) paid all fees and other amounts earned, due and payable to Deutsche Bank Securities Inc. pursuant to (x) that certain that certain Engagement Letter, dated as of June 2, 2021 (the "Engagement Letter"), between the Borrower and DBSI and any separate fee letter relating thereto and (c) reimbursed or paid all reasonable and documented out-of-pocket expenses in connection with this Third Amendment and any other out-of-pocket expenses of the Administrative Agent, including the reasonable fees, charges and disbursements of counsel for the Administrative Agent as required to be paid or reimbursed pursuant to the Engagement Letter and the Credit Agreement.

3. The Administrative Agent shall have received (x) a certificate of good standing with respect to each Credit Party from the Secretary of State (or similar official) of the State of such Credit Party's organization, (y) a closing certificate executed by an Authorized Officer of the Borrower, dated the Third Amendment Effective Date, certifying as to the accuracy (with respect to clauses (i), (ii) and (iii) of Section C.3, in all material respects) of the matters set forth in Section C.3 of this Third Amendment and (z) a certificate executed by an Authorized Officer of the Borrower or the applicable Credit Party, dated the Third Amendment Effective Date, certifying as to the incumbency and specimen signature of each officer of a Credit Party executing this Third Amendment or any other document delivered in connection herewith on behalf of any Credit Party and attaching (A) a true and complete copy of the certificate of incorporation (or other applicable charter document) of each Credit Party, including all amendments thereto, as in effect on the Third Amendment Effective Date, certified as of a recent date by the Secretary of State (or analogous official) of the jurisdiction of its organization, that has not been amended since the date of the last amendment thereto shown on the certificate of good standing furnished pursuant to clause (x) above, (B) a true and complete copy of, or certifying that there have been no changes to, the by-laws (or other applicable operating agreements) of each Credit Party as in effect on the Third Amendment Effective Date and (C) a true and complete copy of resolutions duly adopted or written consents duly executed by the board of directors (or equivalent governing body or any committee thereof) of each Credit Party authorizing the execution, delivery and performance of this Third Amendment and the performance of the Credit Agreement (as amended by this Third Amendment) and the other Credit Documents and certifying that such resolutions or written consents have not been modified, rescinded or amended and are in full force and effect.

4. The Administrative Agent shall have received a solvency certificate in the form attached as Exhibit D to the Credit Agreement from the chief financial officer or other officer with equivalent duties of the Borrower certifying to the solvency of the Borrower and the Subsidiaries on a consolidated basis after giving effect to this Third Amendment.

5. No Default or Event of Default shall have occurred and be continuing (both immediately before and immediately after giving effect to this Third Amendment and the transactions contemplated hereby).

6. The Administrative Agent and its counsel will have received a copy of a customary legal opinion (and each Credit Party hereby instructs such counsel to deliver such opinion to the Administrative Agent and the Lenders), dated as of the Third Amendment

Effective Date, of Fredrikson & Byron P.A., special counsel to the Borrower, with respect to the Borrower and each Guarantor Subsidiary.

7. (i) The Initial Term Loans held by each Term Lender that has not executed and delivered a counterpart of this Third Amendment to the Administrative Agent on or prior to 12:00 P.M. (New York City time) on May 27, 2021, and constitutes a Non-Consenting Lender as contemplated by Section 2.23 of the Credit Agreement (each, a "Third Amendment Non-Consenting Lender") shall be deemed to have been assigned its Initial Term Loans without recourse and effective on the Third Amendment Effective Date, to an assignee Lender in accordance with Section 2.23 of the Credit Agreement, (ii) the allocation of the Initial Term Loans immediately upon giving effect to this Third Amendment are on file with the Administrative Agent, (iii) any fees, costs and any other expenses in connection with such assignment arising under Section 2.18(c), 2.19 or 2.20 of the Credit Agreement (if any) shall have been paid in full or, in the case of transfer fees payable in connection with an assignment, waived by the Administrative Agent (it being understood that the Administrative Agent has waived the right to receive any processing and recordation fee as provided in Section 10.6(d) of the Credit Agreement in connection with this Third Amendment and the transactions contemplated hereby), and (iv) all accrued and unpaid interest on all Initial Term Loans of each Third Amendment Non-Consenting Lender shall have been paid in full by the assignee Lender to such Third Amendment Non-Consenting Lender in accordance with Section 2.23 of the Credit Agreement.

**C. Other Terms**.

**Terms Related to Replacement.** The parties hereto agree that (i) the Interest Periods applicable to the outstanding Revolving Loans and Initial Term Loans as of the Third Amendment Effective Date shall not be affected by this Third Amendment and (ii) the Borrower is exercising its rights under Section 2.23 of the Credit Agreement in connection with this Third Amendment to require any Third Amendment Non-Consenting Lender to assign all of its interests, rights and obligations under the Credit Documents to one or more assignees identified by the Borrower or the Administrative Agent, and the Administrative Agent shall coordinate the transfer of all such Initial Term Loans of each such Third Amendment Non-Consenting Lender to the identified assignees, which transfers shall be effected in accordance with Section 10.6 of the Credit Agreement and shall be effective as of the Third Amendment Effective Date, and each assignee acquiring Initial Term Loans in connection with such transfers shall have provided a signature page to this Third Amendment consenting hereto with respect to such acquired Initial Term Loans.

**2. Waiver.** By execution of this Third Amendment, each of the undersigned Lenders hereby waives the right to claim any compensation pursuant to Section 2.18 (to the extent any such right exists) as a result of assignments of the Initial Term Loans on the Third Amendment Effective Date.

**3. Credit Party Certifications.** By execution of this Third Amendment, each of the undersigned hereby certifies, on behalf of the applicable Credit Party and not in his/her individual capacity, that as of the Third Amendment Effective Date:

(i) each Credit Party has the corporate or other organizational power and authority to execute and deliver this Third Amendment and carry out the terms and provisions of this Third Amendment and the Credit Agreement (as modified hereby) and has taken all necessary corporate or other organizational action to authorize the execution and delivery of this Third Amendment and performance of this Third Amendment and the Credit Agreement (as modified hereby);

(ii) each Credit Party has duly executed and delivered this Third Amendment and each of this Third Amendment and the Credit Agreement (as modified hereby) constitutes the legal, valid and binding obligation of such Credit Party, enforceable against such Credit Party in accordance with its terms, except as may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws relating to or limiting creditors' rights generally or by general equitable principles, regardless of whether considered in a proceeding in equity or at law and principles of good faith and fair dealing;

(iii) the execution, delivery and performance by each Credit Party of this Third Amendment and the consummation of the transactions contemplated by the Third Amendment and the Credit Agreement (as modified hereby) do not and will not (i) (A) violate any of the Organizational Documents of such Credit Party or (B) otherwise require any approval of any stockholder, member or partner of such Credit Party, except for such approvals or consents which have been obtained or made; (ii) violate any provision of any law, rule, regulation, order, judgment or decree of any Governmental Authority applicable to or otherwise binding on such Credit Party, except to the extent such violation could not reasonably be expected to have a Material Adverse Effect; (iii) conflict with, result in a breach of or constitute (with due notice or lapse of time or both) a default under, or otherwise require any approval or consent of any Person under, (A) any Contractual Obligation of such Credit Party, except to the extent such conflict, breach or default could not reasonably be expected to have a Material Adverse Effect, or (B) any Material Indebtedness, and in each case, except for such approvals or consents which have been obtained or made; or (iv) result in or require the creation or imposition of any Lien upon any of the properties or assets of such Credit Party (other than any Liens created under any of the Credit Documents in favor of the Collateral Agent, on behalf of the Secured Parties, and Permitted Liens);

(iv) the representations and warranties contained in the Credit Agreement (as modified hereby) and the other Credit Documents are true and correct in all material respects on and as of the Third Amendment Effective Date (both before and after giving effect thereto) to the same extent as though made on and as of the Third Amendment Effective Date, except to the extent such representations and warranties expressly relate to an earlier date, in which case such representations and warranties shall have been true and correct in all material respects on and as of such earlier date; and

(v) no Default or Event of Default has occurred and is continuing or would result from the consummation of the transactions contemplated hereby.

**4. Amendment, Modification and Waiver.** This Third Amendment may not be amended, modified or waived except by an instrument or instruments in writing signed and delivered on behalf of each of the parties hereto and in accordance with the provisions of Section 10.5 of the Credit Agreement.

**5. Entire Agreement.** This Third Amendment, the Credit Agreement (as modified hereby) and the other Credit Documents constitute the entire agreement among the parties with respect to the subject matter hereof and thereof and supersede all other prior agreements and understandings, both written and verbal, among the parties or any of them with respect to the subject matter hereof.

**6. GOVERNING LAW.** THIS THIRD AMENDMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER, INCLUDING THE VALIDITY, INTERPRETATION, CONSTRUCTION, BREACH, ENFORCEMENT OR TERMINATION HEREOF, AND WHETHER ARISING IN CONTRACT OR TORT OR OTHERWISE, SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.

**7. Severability.** In case any provision in or obligation hereunder or any Note will be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, will not in any way be affected or impaired thereby. If any provision of this Third Amendment is so broad as to be unenforceable, the provision shall be interpreted to be only so broad as would be enforceable.

**8. Counterparts.** This Third Amendment may be executed in counterparts, each of which shall be deemed to be an original, but all of which shall constitute one and the same agreement. Delivery of a counterpart to this Third Amendment by electronic means shall be as effective as delivery of an original counterpart hereof.

**9. Submission to Jurisdiction.** All judicial proceedings brought against any Credit Party arising out of or relating hereto or any other Credit Document, or any of the Obligations, will be brought in any state or Federal court of competent jurisdiction in the State, County and City of New York. By executing and delivering this **Third** Amendment, each Credit Party, for itself and in connection with its properties, irrevocably (a) accepts generally and unconditionally the exclusive jurisdiction and venue of such courts; (b) waives any defense of forum non conveniens; (c) agrees that service of all process in any such proceeding in any such court may be made by registered or certified mail, return receipt requested, to the applicable Credit Party at its address provided in accordance with Section 10.1 of the Credit Agreement; (d) agrees that service as provided in clause (c) above is sufficient to confer personal jurisdiction over the applicable Credit Party in any such proceeding in any such court, and otherwise constitutes effective and binding service in every respect; and (e) agrees that the Agents and Lenders retain the right to serve process in any other manner permitted by law or to bring proceedings against any Credit Party in the courts of any other jurisdiction.

**10. Waiver of Jury Trial.** EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THE THIRD AMENDMENT, THE CREDIT DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED THEREBY AND AGREES THAT ANY SUCH ACTION OR PROCEEDING WILL BE TRIED BEFORE A COURT AND NOT BEFORE A JURY. EACH OF THE PARTIES HERETO ACKNOWLEDGES THAT THIS WAIVER IS A MATERIAL INDUCEMENT TO ENTER INTO A BUSINESS RELATIONSHIP, THAT EACH HAS RELIED ON THE WAIVER IN ENTERING INTO THIS THIRD AMENDMENT, AND THAT EACH WILL CONTINUE TO RELY ON THIS WAIVER IN THEIR RELATED FUTURE DEALINGS. EACH OF THE PARTIES HERETO WARRANTS AND REPRESENTS THAT EACH HAS HAD THE OPPORTUNITY OF REVIEWING THIS JURY WAIVER WITH LEGAL COUNSEL, AND THAT EACH KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS.

**11. Reaffirmation.** By executing and delivering a counterpart hereof, (i) each Credit Party hereby agrees that, as of the Third Amendment Effective Date and after giving effect to this Third Amendment, all Obligations of the Borrower shall be guaranteed pursuant to the Guaranty in accordance with the terms and provisions thereof and shall be secured pursuant to the Collateral Documents in accordance with the terms and provisions thereof; (ii) each Credit Party hereby (A) agrees that, notwithstanding the effectiveness of this Third Amendment, as of the Third Amendment Effective Date and after giving effect to this Third Amendment, the Collateral Documents continue to be in full force and effect, (B) agrees as of the Third Amendment Effective Date that all of the Liens and security interests created and arising under each Collateral Document remain in full force and effect on a continuous basis, and the perfected status and priority of each such Lien and security interest continues in full force and effect on a continuous basis, unimpaired,

uninterrupted and undischarged, as collateral security for its Obligations under the Credit Documents (as modified hereby) to which it is a party, in each case, to the extent provided in, and subject to the limitations and qualifications set forth in, such Credit Documents (as amended by this Third Amendment) and (C) as of the Third Amendment Effective Date affirms and confirms all of its obligations and liabilities under the Credit Agreement (as modified hereby) and each other Credit Document (including this Third Amendment), in each case after giving effect to this Third Amendment, including its guarantee of the Obligations and the pledge of and/or grant of a security interest in its assets constituting Collateral pursuant to the Collateral Documents to secure such Obligations, all as provided in the Collateral Documents, and acknowledges and agrees that as of the Third Amendment Effective Date such obligations, liabilities, guarantee, pledge and grant continue in full force and effect in respect of, and to secure, such Obligations under the Credit Agreement (as modified hereby) and the other Credit Documents, in each case after giving effect to this Third Amendment; and (iii) each Guarantor agrees that nothing in the Credit Agreement, this Third Amendment or any other Credit Document shall be deemed to require the consent of such Guarantor to any future amendment to the Credit Agreement.

**12. Assignments**. The Borrower and the Administrative Agent hereby consent to each assignment of Initial Term Loans made by (i) any Third Amendment Non-Consenting Lender to any assignee and (ii) the Third Amendment Lead Arranger (or its Affiliates) of any Initial Term Loans assigned to it by a Third Amendment Non-Consenting Lender, in each case in connection with the replacement of any Third Amendment Non-Consenting Lender (to the extent the applicable assignee has been identified on a list approved by the Borrower on or prior to the date of allocation of the Initial Term Loans to such assignee).

**13. Miscellaneous**. This Third Amendment shall constitute a Credit Document for all purposes of the Credit Agreement (as modified hereby) and the other Credit Documents. The provisions of this Third Amendment are deemed incorporated as of the Third Amendment Effective Date into the Credit Agreement as if fully set forth therein. Except as specifically amended by this Third Amendment, (i) the Credit Agreement and the other Credit Documents shall remain in full force and effect and (ii) the execution, delivery and performance of this Third Amendment shall not constitute a waiver of any provision of, or operate as a waiver of any right, power or remedy of any Agent or Lender under, the Credit Agreement or any of the other Credit Documents.

**IN WITNESS WHEREOF**, each of the undersigned has caused its duly authorized officer to execute and deliver this Third Amendment as of the date first set forth above.

**BORROWER:**

**CRYOLIFE, INC.**

By:_____
Name:
Title:

**GUARANTOR SUBSIDIARIES:**

**CRYOLIFE INTERNATIONAL, INC.**
**ON-X LIFE TECHNOLOGIES HOLDINGS, INC.**
**ON-X LIFE TECHNOLOGIES, INC.**
**AURAZYME PHARMACEUTICALS, INC.**

By:_____

Name:

Title:

**DEUTSCHE BANK AG NEW YORK BRANCH,** as Administrative Agent

By:_____
Name:
Title:

By:_____
Name:
Title:

IN WITNESS WHEREOF, the undersigned has caused this Third Amendment to be executed as of the date first written above.

_____

*(Please type or print legal name of Lender)*

By:_____
Name:

Title:

[If a second signature is required]

By:_____
Name:

Title:

**Exhibit 31.1**

CERTIFICATIONS

I, James Patrick Mackin, certify that:

1. I have reviewed this quarterly report on Form 10-Q of CryoLife, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 30, 2021

s/ J. PATRICK MACKIN
Chairman, President, and
Chief Executive Officer

**Exhibit 31.2**

I, David Ashley Lee, certify that:

1. I have reviewed this quarterly report on Form 10-Q of CryoLife, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 30, 2021

/s/ D. ASHLEY LEE
Executive Vice President,
Chief Operating Officer, and
Chief Financial Officer

**Exhibit 32**

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

In connection with the Quarterly Report of CryoLife, Inc. (the "Company") on Form 10-Q for the quarter ending June 30, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of James Patrick Mackin, the Chairman, President, and Chief Executive Officer of the Company, and David Ashley Lee, the Executive Vice President, Chief Operating Officer, and Chief Financial Officer of the Company, hereby certifies, pursuant to and for purposes of 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, in his capacity as an officer of the Company and to his knowledge:

(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.

/s/ J. PATRICK MACKIN
J. PATRICK MACKIN
Chairman, President, and
Chief Executive Officer
July 30, 2021

/s/ D. ASHLEY LEE
D. ASHLEY LEE
Executive Vice President,
Chief Operating Officer, and Chief Financial Officer
July 30, 2021