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

Form 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2023

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

For the transition period from ______ to ______.

Commission File Number: 001-34632

CRYOPORT, INC.
(Exact Name of Registrant as Specified in its Charter)

Nevada	**88-0313393**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

112 Westwood Place, Suite 350
Brentwood, TN 37027
(Address of principal executive offices, including zip code)

(949) 470-2300
(Registrant’s telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report)

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, $0.001 par value	CYRX	The Nasdaq Stock Market LLC (The Nasdaq Capital Market)

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

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

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

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

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

As of November 3, 2023 there were 48,963,717 shares of the registrant's common stock outstanding.

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Cryoport, Inc. and Subsidiaries
Condensed Consolidated Balance Sheets
(in thousands, except share data)

	September 30, 2023 (unaudited)	December 31, 2022
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 59,473	$ 36,595
Short-term investments	406,389	486,728
Accounts receivable, net	42,626	43,858
Inventories	29,104	27,678
Prepaid expenses and other current assets	11,548	9,317
Total current assets	549,140	604,176
Property and equipment, net	74,520	63,603
Operating lease right-of-use assets	32,561	26,877
Intangible assets, net	192,962	191,009
Goodwill	148,954	151,117
Deposits	1,656	1,017
Deferred tax assets	863	947
Total assets	$ 1,000,656	$ 1,038,746
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable and other accrued expenses	$ 27,875	$ 28,046
Accrued compensation and related expenses	10,426	8,458
Deferred revenue	1,580	439
Current portion of operating lease liabilities	4,759	3,720
Current portion of finance lease liabilities	195	128
Current portion of notes payable	70	60
Total current liabilities	44,905	40,851
Convertible senior notes, net of discount of $7.6 million and $10.1 million, respectively	377,955	406,708
Notes payable	307	355
Operating lease liabilities, net of current portion	29,757	24,721
Finance lease liabilities, net of current portion	632	216
Deferred tax liabilities	4,708	4,929
Other long-term liabilities	484	451
Contingent consideration	4,380	4,677
Total liabilities	463,128	482,908
Commitments and contingencies		
Stockholders' Equity:		
Preferred stock, $0.001 par value; 2,500,000 shares authorized:		
Class A convertible preferred stock - $0.001 par value; 800,000 shares authorized; none issued and outstanding	—	—
Class B convertible preferred stock - $0.001 par value; 585,000 shares authorized; none issued and outstanding	—	—
Class C convertible preferred stock, $0.001 par value; 250,000 shares authorized; 200,000 issued and outstanding	24,275	18,275
Common stock, $0.001 par value; 100,000,000 shares authorized; 48,963,717 and 48,334,280 issued and outstanding at September 30, 2023 and December 31, 2022, respectively	49	48
Additional paid-in capital	1,127,335	1,114,896
Accumulated deficit	(580,030)	(542,832)
Accumulated other comprehensive loss	(34,101)	(34,549)
Total stockholders' equity	537,528	555,838
Total liabilities and stockholders' equity	$ 1,000,656	$ 1,038,746

See accompanying notes to condensed consolidated financial statements.

Cryoport, Inc. and Subsidiaries
Condensed Consolidated Statements of Operations
(in thousands, except share and per share data)
(unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Service revenues	$ 36,022	$ 33,296	$ 107,062	$ 100,791
Product revenues	20,135	27,168	68,933	76,128
Total revenues	56,157	60,464	175,995	176,919
Cost of service revenues	20,803	18,913	59,887	56,742
Cost of product revenues	11,088	15,134	40,037	42,581
Total cost of revenues	31,891	34,047	99,924	99,323
Gross margin	24,266	26,417	76,071	77,596
Operating costs and expenses:				
Selling, general and administrative	36,023	30,235	108,066	87,420
Engineering and development	5,152	3,985	13,291	11,045
Total operating costs and expenses	41,175	34,220	121,357	98,465
Loss from operations	(16,909)	(7,803)	(45,286)	(20,869)
Other income (expense):				
Investment income	2,848	2,485	7,962	5,797
Interest expense	(1,357)	(1,609)	(4,197)	(4,686)
Gain on extinguishment of debt, net	5,679	—	5,679	—
Other income (expense), net	(3,059)	1,668	242	(7,377)
Total other income (expense), net	4,111	2,544	9,686	(6,266)
Loss before provision for income taxes	(12,798)	(5,259)	(35,600)	(27,135)
Provision for income taxes	(471)	(57)	(1,598)	(762)
Net loss	$ (13,269)	$ (5,316)	$ (37,198)	$ (27,897)
Paid-in-kind dividend on Series C convertible preferred stock	(2,000)	(2,000)	(6,000)	(6,000)
Net loss attributable to common stockholders	$ (15,269)	$ (7,316)	$ (43,198)	$ (33,897)
Net loss per share - basic and diluted	$ (0.31)	$ (0.15)	$ (0.89)	$ (0.69)
Weighted average shares outstanding – basic and diluted	48,904,102	48,520,696	48,660,646	49,148,558

See accompanying notes to condensed consolidated financial statements.

Cryoport, Inc. and Subsidiaries
Condensed Consolidated Statements of Comprehensive Loss
(unaudited, in thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Net loss	$ (13,269)	$ (5,316)	$ (37,198)	$ (27,897)
Other comprehensive income (loss), net of tax:				
Net unrealized gain (loss) on available-for-sale debt securities	624	(6,537)	3,076	(25,912)
Reclassification of realized loss on available-for-sale debt securities to earnings	758	—	1,389	46
Foreign currency translation adjustments	(995)	(7,215)	(4,017)	(15,819)
Other comprehensive income (loss)	387	(13,752)	448	(41,685)
Total comprehensive loss	$ (12,882)	$ (19,068)	$ (36,750)	$ (69,582)

See accompanying notes to condensed consolidated financial statements.

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Cryoport, Inc. and Subsidiaries
Condensed Consolidated Statements of Stockholders' Equity
(In thousands, except share data)
(unaudited)

	Class A Preferred Stock		Class B Preferred Stock		Class C Preferred Stock		Common Stock		Additional Paid–In Capital	Accumulated Deficit	Other Comprehensive Loss	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at June 30, 2022	—	$ —	—	$ —	200,000	$ 14,275	48,482,502	$ 49	$ 1,081,747	$ (498,471)	$ (29,176)	$ 568,424
Net loss	—	—	—	—	—	—	—	—	—	(5,316)	—	(5,316)
Other comprehensive loss, net of taxes	—	—	—	—	—	—	—	—	—	—	(13,752)	(13,752)
Stock-based compensation expense	—	—	—	—	—	—	—	—	5,366	—	—	5,366
Paid-in-kind preferred stock dividend	—	—	—	—	—	2,000	—	—	(2,000)	—	—	—
Vesting of restricted stock units	—	—	—	—	—	—	4,500	—	—	—	—	—
Proceeds from exercise of stock options	—	—	—	—	—	—	71,429	—	999	—	—	999
Balance at September 30, 2022	—	$ —	—	$ —	200,000	$ 16,275	48,558,431	$ 49	$ 1,086,112	$ (503,787)	$ (42,928)	$ 555,721
Balance at June 30, 2023	—	$ —	—	$ —	200,000	$ 22,275	48,879,018	$ 49	$ 1,123,180	$ (566,761)	$ (34,488)	$ 544,255
Net loss	—	—	—	—	—	—	—	—	—	(13,269)	—	(13,269)
Other comprehensive loss, net of taxes	—	—	—	—	—	—	—	—	—	—	387	387
Stock-based compensation expense	—	—	—	—	—	—	—	—	5,976	—	—	5,976
Paid-in-kind preferred stock dividend	—	—	—	—	—	2,000	—	—	(2,000)	—	—	—
Vesting of restricted stock units	—	—	—	—	—	—	12,499	—	—	—	—	—
Proceeds from exercise of stock options	—	—	—	—	—	—	72,200	—	179	—	—	179
Balance at September 30, 2023	—	$ —	—	$ —	200,000	$ 24,275	48,963,717	$ 49	$ 1,127,335	$ (580,030)	$ (34,101)	$ 537,528
Balance at December 31, 2021	—	$ —	—	$ —	200,000	$ 10,275	49,616,154	$ 50	$ 1,100,287	$ (467,541)	$ (1,243)	$ 641,828
Net loss	—	—	—	—	—	—	—	—	—	(27,897)	—	(27,897)
Other comprehensive loss, net of taxes	—	—	—	—	—	—	—	—	—	—	(41,685)	(41,685)
Stock-based compensation expense	—	—	—	—	—	—	—	—	14,749	—	—	14,749
Paid-in-kind preferred stock dividend	—	—	—	—	—	6,000	—	—	(6,000)	—	—	—
Issuance of common stock for Cell&Co acquisition	—	—	—	—	—	—	15,152	—	479	—	—	479
Repurchase of common stock	—	—	—	—	—	—	(1,341,571)	(1)	(24,999)	(8,349)	—	(33,349)
Vesting of restricted stock units	—	—	—	—	—	—	97,062	—	—	—	—	—
Proceeds from exercise of stock options	—	—	—	—	—	—	171,634	—	1,596	—	—	1,596
Balance at September 30, 2022	—	$ —	—	$ —	200,000	$ 16,275	48,558,431	$ 49	$ 1,086,112	$ (503,787)	$ (42,928)	$ 555,721
Balance at December 31, 2022	—	$ —	—	$ —	200,000	$ 18,275	48,334,280	$ 48	$ 1,114,896	$ (542,832)	$ (34,549)	$ 555,838
Net loss	—	—	—	—	—	—	—	—	—	(37,198)	—	(37,198)
Other comprehensive income, net of taxes	—	—	—	—	—	—	—	—	—	—	448	448
Stock-based compensation expense	—	—	—	—	—	—	—	—	16,960	—	—	16,960
Paid-in-kind preferred stock dividend	—	—	—	—	—	6,000	—	—	(6,000)	—	—	—
Vesting of restricted stock units	—	—	—	—	—	—	221,623	—	—	—	—	—
Proceeds from exercise of stock options	—	—	—	—	—	—	407,814	1	1,479	—	—	1,480
Balance at September 30, 2023	—	$ —	—	$ —	200,000	$ 24,275	48,963,717	$ 49	$ 1,127,335	$ (580,030)	$ (34,101)	$ 537,528

See accompanying notes to condensed consolidated financial statements.

Cryoport, Inc. and Subsidiaries
Condensed Consolidated Statements of Cash Flows
(unaudited, in thousands)

	For the Nine Months Ended September 30, 2023	2022
Cash Flows From Operating Activities:		
Net loss	$ (37,198)	$ (27,897)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	20,038	16,631
Amortization of debt discount	1,928	1,930
Non-cash operating lease expense	3,403	2,688
Unrealized (gain) loss on investments in equity securities	2,255	12,436
Realized loss on available-for-sale investments	62	113
Stock-based compensation expense	16,960	14,749
Loss on disposal of property and equipment	277	574
Gain on extinguishment of debt, net	(5,679)	—
Gain on insurance settlement	(2,642)	(4,815)
Change in credit losses	(135)	13
Excess and obsolete inventory	—	546
Insurance proceeds for operations	1,212	6,429
Change in contingent consideration	(205)	145
Changes in operating assets and liabilities:		
Accounts receivable	1,088	(8,307)
Inventories	(1,572)	(11,179)
Prepaid expenses and other current assets	(2,298)	(1,419)
Deposits	(652)	9
Operating lease liabilities	(3,009)	(2,372)
Accounts payable and other accrued expenses	(36)	(3,172)
Accrued compensation and related expenses	2,013	(1,218)
Deferred revenue	1,141	(420)
Net deferred tax liability	(190)	(969)
Net cash used in operating activities	(3,239)	(5,505)
Cash Flows From Investing Activities:		
Purchases of property and equipment	(27,212)	(14,250)
Insurance proceeds for loss of fixed assets	976	3,000
Software development costs	(4,830)	(965)
Purchases of short-term investments	—	(155,353)
Acquisitions	—	(6,554)
Sales/maturities of short-term investments	82,487	107,835
Patent and trademark costs	(616)	(518)
Net cash provided by (used in) investing activities	50,805	(66,805)
Cash Flows From Financing Activities:		
Proceeds from exercise of stock options	1,480	1,596
Repurchase of common stock	—	(33,349)
Cash paid for repurchase of 2026 Senior Notes	(25,003)	—
Repayment of notes payable	(26)	(2,069)
Repayment of finance lease liabilities	(123)	(46)
Net cash used in financing activities	(23,672)	(33,868)
Effect of exchange rates on cash and cash equivalents	(1,016)	(2,199)
Net change in cash and cash equivalents	22,878	(108,377)
Cash and cash equivalents — beginning of period	36,595	139,101
Cash and cash equivalents — end of period	$ 59,473	$ 30,724
Supplemental Disclosure of Cash Flow Information:		
Cash paid for interest	$ 1,792	$ 1,904
Cash paid for income taxes	$ 951	$ 1,276
Supplemental Disclosure of Non-Cash Financing Activities:		
Operating lease right-of-use assets and operating lease liabilities	$ 9,581	$ 5,084
Net unrealized gain (loss) on available-for-sale debt securities	$ 3,076	$ (25,912)
Reclassification of realized gain (loss) on available-for-sale debt securities to earnings	$ 1,389	$ (46)
Paid-in-kind preferred stock dividend, including beneficial conversion feature	$ 6,000	$ 6,000
Fixed assets included in accounts payable and accrued liabilities	$ 572	$ 481
Receivable included in prepaid expenses and other current assets	$ —	$ 3,033
Common stock issued for Cell&Co acquisition	$ —	479

See accompanying notes to condensed consolidated financial statements.

Cryoport, Inc. and Subsidiaries
Notes to Condensed Consolidated Financial Statements
For the Three and Nine Months Ended September 30, 2023 and 2022
(Unaudited)

Note 1. Management’s Representation and Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared by Cryoport, Inc. (the “Company”, “Cryoport”, “our” or “we”) in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) for interim financial information, and pursuant to the instructions to Form 10-Q and Article 10 of Regulation S-X promulgated by the Securities and Exchange Commission (“SEC”). Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statement presentation. However, the Company believes that the disclosures are adequate to make the information presented not misleading. In the opinion of management, all adjustments (consisting primarily of normal recurring accruals) considered necessary for a fair presentation have been included.

Operating results for the three and nine months ended September 30, 2023 are not necessarily indicative of the results that may be expected for the year ending December 31, 2023. The unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and related notes thereto included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2022.

The Company has evaluated subsequent events through the date of this filing and determined that no subsequent events have occurred that would require recognition in the unaudited condensed consolidated financial statements or disclosure in the notes thereto other than as disclosed in the accompanying notes.

Note 2. Nature of the Business

Cryoport is a leading global provider of innovative products and services supporting the life sciences in the biopharma/pharma, animal health, and reproductive medicine markets. Our mission is to enable the future of medicine for a new era of life sciences. With 48 strategic locations covering the Americas, EMEA (Europe, the Middle East and Africa) and APAC (Asia Pacific), Cryoport's global platform provides mission-critical bio-logistics, bio-storage, bio-processing, and cryogenic systems to over 3,000 customers worldwide. Our platform of solutions and services, together with our global team of over 1,000 dedicated colleagues, delivers a unique combination of innovative supply chain technologies and services through our industry-leading brands, including Cryoport Systems, IntegriCell™, CryoStork®, MVE Biological Solutions, CRYOPDP, and CRYOGENE.

The Company is a Nevada corporation and its common stock is traded on the NASDAQ Capital Market exchange under the ticker symbol “CYRX.”

Note 3. Summary of Significant Accounting Policies

There have been no material changes to the Company’s significant accounting policies during the nine months ended September 30, 2023, as compared to the significant accounting policies disclosed in Note 2 – Summary of Significant Accounting Policies to the Company’s consolidated financial statements included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2022.

Foreign Currency Transactions

Management has determined that the functional currency of its subsidiaries is the local currency. Assets and liabilities of foreign subsidiaries are translated into U.S. dollars at the period-end exchange rates. Income and expenses are translated at an average exchange rate for the period and the resulting translation gain (loss) adjustments are accumulated as a separate component of stockholders' equity. The translation gain (loss) adjustment totaled $(4.0) million and $(15.8) million for the nine months ended September 30, 2023 and 2022, respectively. Foreign currency gains and losses from transactions denominated in other than respective local currencies are included in earnings.

Recently Adopted Accounting Pronouncements

In September 2022, the Financial Accounting Standards Board ("FASB") issued ASU 2022-04, "Liabilities—Supplier Finance Programs (Subtopic 405-50): Disclosure of Supplier Finance Program Obligations," which is intended to enhance the transparency surrounding the use of supplier finance programs in connection with the purchase of goods and services. Supplier finance programs may also be referred to as reverse factoring, payables finance, or structured payables arrangements. The amendments in ASU 2022-04 require a buyer that uses supplier finance programs to disclose sufficient qualitative and quantitative information about the program to allow a user of financial statements to understand the program's nature, activity during the period, changes from period to period, and potential magnitude. ASU 2022-04 is effective for all entities for fiscal years beginning after December 15, 2022, on a retrospective basis, including interim periods with those fiscal years, except for the requirement to disclose roll-forward information, which is effective prospectively for fiscal years beginning after December 15, 2023. We adopted ASU 2022-04 on January 1, 2023. The adoption of this standard did not have an impact on the Company's consolidated financial statements or disclosures as the Company currently does not have supplier finance programs.

In March 2022, the FASB issued ASU 2022-02, "Financial Instruments—Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures," which addresses and amends areas identified by the FASB as part of its post-implementation review of the accounting standard that introduced the current expected credit losses ("CECL") model. The amendments eliminate the accounting guidance for troubled debt restructurings by creditors that have adopted the CECL model and enhance the disclosure requirements for loan refinancings and restructurings made with borrowers experiencing financial difficulty. In addition, the amendments require disclosure of current-period gross write offs for financing receivables and net investment in leases by year of origination in the vintage disclosures. For entities, such as Cryoport, that had *not* yet adopted the CECL accounting model in ASU 2016-13, the effective date for the amendments in ASU 2022-02 is the same as the effective date in ASU 2016-13 (i.e., fiscal years beginning after December 15, 2022, including interim periods within those fiscal years). We adopted ASU 2022-02 on January 1, 2023. The adoption of this standard did not have a material impact on the Company's consolidated financial statements or disclosures.

In October 2021, the FASB issued ASU 2021-08, "Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers." ASU 2021-08 requires contract assets and contract liabilities acquired in a business combination to be recognized and measured in accordance with Topic 606, Revenue from Contracts with Customers, on the acquisition date as if the acquirer had entered into the original contract at the same date and on the same terms as the acquiree. ASU 2021-08 is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years for public business entities. We adopted ASU 2021-08 on January 1, 2023. The adoption of this standard did not have a material impact on the Company's consolidated financial statements or disclosures.

In June 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses on Financial Instruments." This ASU replaces the incurred loss impairment methodology in current U.S. GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information for credit loss estimates on certain types of financial instruments, including trade receivables. In addition, new disclosures are required. The ASU, as subsequently amended, is effective for the Company for fiscal years beginning after December 15, 2022, as the Company was a smaller reporting company as of November 15, 2019, the determination date. We adopted ASU 2016-13 on January 1, 2023. Based on the composition of the Company's accounts receivable, investment portfolio, and other financial assets, including current market conditions and historical credit loss activity, the adoption of this standard did not have a material impact on the Company's consolidated financial statements or disclosures. Specifically, the Company's estimate of expected credit losses as of September 30, 2023, using its expected credit loss evaluation process described above, resulted in no adjustments to the provision for credit losses and no cumulative-effect adjustment to accumulated deficit on the adoption date of the standard.

Accounting Guidance Issued but Not Adopted at September 30, 2023

In August 2023, the FASB issued ASU 2023-05, "Business Combinations—Joint Venture Formations (Subtopic 805-60): Recognition and Initial Measurement," which applies to the formation of entities that meet the definition of a joint venture (or a corporate joint venture) and requires joint ventures to initially measure all contributions received upon formation at fair value. The new guidance does not impact accounting by the venturers. The new guidance is applicable to joint venture entities with a formation date on or after January 1, 2025 on a prospective basis. Joint ventures formed prior to the effective date may elect to apply the new guidance retrospectively back to their original formation date. ASU 2023-05 is not currently applicable to Cryoport because we do not have existing arrangements in entities that meet the definition of a joint venture as described in the new standard; however, we will apply this guidance in future reporting periods after the guidance is effective to any future arrangements meeting the definition of a joint venture.

In June 2022, the FASB issued ASU 2022-03, "Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions," which amends the guidance in Topic 820, *Fair Value Measurement*, to clarify that a contractual restriction on the sale of an equity security is not considered part of the unit of account of the equity security and, therefore, is not considered in measuring fair value. The amendments also clarify that an entity cannot, as a separate unit of account, recognize and measure a contractual sale restriction. In addition, the ASU introduces new disclosure requirements for equity securities subject to contractual sale restrictions that are measured at fair value. ASU 2022-03 is effective for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years for public business entities. We are currently evaluating the impact of this standard on our consolidated financial statements.

Note 4. Revenue, Concentrations and Geographic Information

Customers

The Company grants credit to customers within the U.S. and international customers and does not require collateral. Revenues from international customers are generally secured by advance payments except for established foreign customers. The Company generally requires advance or credit card payments for initial revenues from new customers. The Company's ability to collect receivables can be affected by economic fluctuations in the geographic areas and industries served by the Company. Credit loss reserves for uncollectible amounts are provided based on past experience and a specific analysis of the accounts, which management believes to be sufficient. Accounts receivable at September 30, 2023 and December 31, 2022 are net of provision for credit losses of $1.2 million and $1.3 million, respectively. Although the Company expects to collect amounts due, actual collections may differ from the estimated amounts. The Company maintains reserves for credit losses and such losses, in the aggregate, historically have not exceeded its estimates.

The Company's customers are in the biopharma, pharmaceutical, animal health, reproductive medicine, and other life science industries. Consequently, there is a concentration of accounts receivable within these industries, which is subject to normal credit risk. There were no customers that accounted for more than 10% of net accounts receivable at September 30, 2023 and December 31, 2022.

The Company has revenue from foreign customers primarily in the United Kingdom, France, Germany, China and India. During the three months ended September 30, 2023 and 2022, the Company had revenues from foreign customers of approximately $24.6 million and $26.3 million, respectively, which constituted approximately 43.8% and 43.4%, respectively, of total revenues. No single customer generated over 10% of revenues during the three months ended September 30, 2023 and 2022.

During the nine months ended September 30, 2023 and 2022, the Company had revenues from foreign customers of approximately $79.6 million and $79.9 million, respectively, which constituted approximately 45.3% and 45.2%, respectively, of total revenues. No single customer generated over 10% of revenues during the nine months ended September 30, 2023 and 2022.

Revenue Disaggregation

The Company views its operations, makes decisions regarding how to allocate resources and manages its business as one reportable segment and one reporting unit. As a result, the financial information disclosed herein represents all of the material financial information related to the Company. When disaggregating revenue, the Company considered all of the economic factors that may affect its revenues. We consider sales disaggregated by end-market to depict how the nature, amount, timing and uncertainty of revenues and cash flows are impacted by changes in economic factors. The following table disaggregates our revenues by major markets for the three and nine months ended September 30, 2023 and 2022 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Biopharma/Pharma	$ 46,979	$ 48,570	$ 144,634	$ 143,309
Animal Health	6,884	9,629	23,620	25,985
Reproductive Medicine	2,294	2,265	7,741	7,625
Total revenues	$ 56,157	$ 60,464	$ 175,995	$ 176,919

Prior year amounts in animal health and reproductive medicine have been reclassified within revenue to biopharma/pharma. These reclassifications had no effect on the previously reported total revenues.

Given that the Company's revenues are generated in different geographic regions, factors such as regulatory and geopolitical factors within those regions could impact the nature, timing and uncertainty of the Company's revenues and cash flows. Our geographical revenues, by origin, for the three and nine months ended September 30, 2023 and 2022, were as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Americas	$ 31,570	$ 34,211	$ 96,351	$ 96,982
Europe, the Middle East, and Africa (EMEA)	14,236	16,000	47,507	49,041
Asia Pacific (APAC)	10,351	10,253	32,137	30,896
Total revenues	$ 56,157	$ 60,464	$ 175,995	$ 176,919

Contract Liabilities (Deferred Revenue)

Contract liabilities are recorded when cash payments are received in advance of the Company's performance. Deferred revenue was $1.6 million and $0.4 million at September 30, 2023 and December 31, 2022, respectively. During the three months ended September 30, 2023 and 2022, the Company recognized revenues of $1.0 million and $0.3 million, respectively, from the related contract liabilities outstanding as the services were performed. During the nine months ended September 30, 2023 and 2022, the Company recognized revenues of $1.9 million and $0.8 million, respectively, from the related contract liabilities outstanding as the services were performed.

Credit Losses

The accounts receivable balance on our consolidated balance sheet as of September 30, 2023 was $42.6 million, net of $1.2 million of allowances. The following table provides a roll-forward of the allowance for credit losses that is deducted from the amortized cost basis of accounts receivable to present the net amount expected to be collected at September 30, 2023:

Balance at January 1, 2023	$ 1,275
Change in expected credit losses	(24)
Write-offs, net of recoveries	(44)
Balance at September 30, 2023	$ 1,207

Note 5. Net Loss Per Share

We calculate basic and diluted net loss per share using the weighted average number of common shares outstanding during the periods presented. In periods of a net loss position, basic and diluted weighted average common shares are the same. For the diluted earnings per share calculation, we adjust the weighted average number of common shares outstanding to include dilutive stock options, unvested restricted stock units and shares associated with the conversion of the Company's 0.75% Convertible Senior Notes due in 2026 (the "2026 Senior Notes"), the Company's 3.0% Convertible Senior Notes due in 2025 (the "2025 Senior Notes" and together with the 2026 Senior Notes, the "Convertible Senior Notes") and convertible preferred stock outstanding during the periods.

The following shows the amounts used in computing net loss per share (in thousands except per share data):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Net loss	$ (13,269)	$ (5,316)	$ (37,198)	$ (27,897)
Paid-in-kind dividend on Series C convertible preferred stock	(2,000)	(2,000)	(6,000)	(6,000)
Net loss attributable to common shareholders	$ (15,269)	$ (7,316)	$ (43,198)	$ (33,897)
Weighted average common shares issued and outstanding - basic and diluted	48,904,102	48,520,696	48,660,646	49,148,558
Basic and diluted net loss per share	$ (0.31)	$ (0.15)	$ (0.89)	$ (0.69)

The following table sets forth the number of shares excluded from the computation of diluted loss per share, as their inclusion would have been anti-dilutive:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Stock options	2,149,221	4,491,986	2,735,008	4,406,982
Restricted stock units	1,073,840	733,475	1,073,840	733,475
Series C convertible preferred stock	5,836,173	5,607,898	5,836,173	5,607,898
Conversion of 2026 Senior Notes	3,156,483	3,422,780	3,156,483	3,422,780
Conversion of 2025 Senior Notes	599,954	599,954	599,954	599,954
	12,815,671	14,856,093	13,401,458	14,771,089

Note 6. Acquisitions

2022 Acquisitions

In April 2022, we completed the acquisition of Cell&Co BioServices in Clermont-Ferrand, France with additional operations in Pont-du-Château, France to further enhance our existing global temperature-controlled supply chain capabilities. Cell&Co BioServices is a bioservices business providing biorepository, kitting, and logistics services to the life sciences industry. The purchase consideration was €5.7 million ($6.2 million), comprised of upfront consideration of €3.2 million ($3.5 million) in cash, 15,152 shares of the Company's common stock with a fair value of $0.4 million, and an earn-out provision with a fair value of €2.0 million ($2.2 million) based on achieving annual EBITDA targets through 2025, as defined in the share purchase agreement. Of the purchase consideration, $2.7 million was allocated to goodwill and $3.4 million to identifiable intangible assets. The acquired goodwill and intangible assets are not deductible for tax purposes.

In July 2022, the Company completed the acquisition of Polar Expres based in Madrid, Spain, which provides temperature-controlled logistics solutions dedicated to the life sciences industry. Polar Expres operates logistics centers in Madrid and Barcelona supporting the rapidly growing life science market. This acquisition further expands CRYOPDP's footprint which enhances our existing global temperature-controlled supply chain capabilities and provides us with additional growth opportunities in the EMEA region. The purchase consideration was €2.8 million ($2.8 million), comprised of cash consideration of €1.4 million ($1.4 million) and an earn-out provision with a fair value of €1.4 million ($1.4 million) based on achieving 2024 and 2026 EBITDA targets as defined in the share purchase agreement. Of the purchase consideration, $1.7 million was allocated to goodwill and $1.0 million to identifiable intangible assets. The acquired goodwill and intangible assets are not deductible for tax purposes.

In July 2022, the Company also completed the acquisition of Cell Matters based in Liège, Belgium, which provides cryo-process optimization, cryoprocessing, and cryopreservation solutions to the life sciences industry. The purchase consideration was €3.9 million ($4.0 million). The purchase consideration, including the reimbursement of financial indebtedness at the closing date, in the amount of €4.7 million ($4.7 million) in aggregate was allocated to goodwill. The value of this acquisition is assigned to Cell Matters' assembled workforce which has significant expertise in cryo-process optimization and cryopreservation. Through September 30, 2023, the Company recorded a measurement period adjustment of $0.1 million comprised of a refund from the sellers following payments made from Cell Matters to the sellers between the locked box date and the closing date, in accordance with the locked box mechanism as defined in the share purchase agreement. The acquired goodwill is not deductible for tax purposes.

2023 Acquisitions

In November 2023, the Company completed the acquisition of TEC4MED LifeScience GmbH (Tec4med) based in Darmstadt, Germany for approximately $3.1 million. Tec4med provides next generation pharmaceutical supply chain visibility by integrating condition monitoring, cloud and artificial intelligence (AI) solutions. ISO 9001-certified, Tec4med works with pharmaceutical-compliant, ready-to-use devices and software, offering customer-specific integrations. Tec4med broadens Cryoport's portfolio of condition monitoring solutions and provides additional resources and capabilities to drive new product development and accelerate its European market expansion, particularly in the DACH region (Germany, Austria, Switzerland).

Note 7. Cash, Cash Equivalents and Short-Term Investments

Cash, cash equivalents and short-term investments consisted of the following as of September 30, 2023 and December 31, 2022 (in thousands):

	September 30, 2023	December 31, 2022
Cash	$ 40,760	$ 34,752
Cash equivalents:		
Money market mutual fund	18,713	1,843
Total cash and cash equivalents	59,473	36,595
Short-term investments:		
U.S. Treasury notes and bills	129,931	190,718
Mutual funds	97,522	99,777
Corporate debt securities	178,936	196,233
Total short-term investments	406,389	486,728
Cash, cash equivalents and short-term investments	$ 465,862	$ 523,323

Available-for-sale investments

The amortized cost, gross unrealized gains, gross unrealized losses and fair value of available-for-sale investments by type of security at September 30, 2023 were as follows (in thousands):

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
U.S. Treasury notes	$ 127,887	$ 2,122	$ (78)	$ 129,931
Corporate debt securities	177,904	1,456	(424)	178,936
Total available-for-sale investments	$ 305,791	$ 3,578	$ (502)	$ 308,867

The following table summarizes the fair value of available-for-sale investments based on stated contractual maturities as of September 30, 2023:

	Amortized Cost	Fair Value
Due within one year	$ 124,440	$ 126,880
Due after one year through five years	181,351	181,987
Due after five years through ten years	—	—
Total	$ 305,791	$ 308,867

The amortized cost, gross unrealized gains, gross unrealized losses and fair value of available-for-sale investments by type of security at December 31, 2022 were as follows (in thousands):

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
U.S. Treasury notes	$ 199,626	$ 5	$ (8,913)	$ 190,718
Corporate debt securities	210,764	1,243	(15,774)	196,233
Total available-for-sale investments	$ 410,390	$ 1,248	$ (24,687)	$ 386,951

The following table summarizes the fair value of available-for-sale investments based on stated contractual maturities as of December 31, 2022:

	Amortized Cost	Fair Value
Due within one year	$ 129,568	$ 126,776
Due after one year through five years	280,822	260,175
Due after five years through ten years	—	—
Total	$ 410,390	$ 386,951

The primary objective of our investment portfolio is to enhance overall returns in an efficient manner while maintaining safety of principal, prudent levels of liquidity and acceptable levels of risk. Our investment policy limits interest-bearing security investments to certain types of debt and money market instruments issued by institutions with primarily investment-grade credit ratings, and it places restrictions on maturities and concentration by asset class and issuer.

We review our available-for-sale investments for other-than-temporary declines in fair value below our cost basis each quarter and whenever events or changes in circumstances indicate that the cost basis of an asset may not be recoverable. The evaluation is based on a number of factors, including the length of time and the extent to which the fair value has been below our cost basis, as well as adverse conditions related specifically to the security such as any changes to the credit rating of the security and the intent to sell or whether we will more likely than not be required to sell the security before recovery of its amortized cost basis. Our assessment of whether a security is other-than-temporarily impaired could change in the future based on new developments or changes in assumptions related to that particular security.

The following table shows the Company’s gross unrealized losses and fair value of available-for-sale debt securities, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position at September 30, 2023:

	Less than 12 Months		12 Months or More		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. Treasury notes	$ 1,947	$ (19)	$ 127,984	$ (59)	$ 129,931	$ (78)
Corporate debt securities	13,657	(13)	165,279	(411)	178,936	(424)
Total	$ 15,604	$ (32)	$ 293,263	$ (470)	$ 308,867	$ (502)

For U.S. Treasury notes, the unrealized losses were caused by interest rate increases. The contractual terms of those investments do not permit the issuer to settle the securities at a price less than the amortized cost of the investment. Because the Company does not intend to sell the investments and it is not more likely than not that the Company will be required to sell the investments before recovery of their amortized cost bases, which may be maturity, the Company does not consider the U.S. Treasury notes to be other-than-temporarily impaired at September 30, 2023. For corporate debt securities, the unrealized losses were primarily caused by interest rate increases. The Company does not intend to sell these debt securities that are in an unrealized loss position, and it is not more likely than not that the Company will be required to sell these debt securities before recovery of their amortized cost bases, which may be at maturity. Based on the credit quality of the debt securities, and the Company’s estimates of future cash flows to be collected from those securities, the Company believes the unrealized losses are not credit losses. Accordingly, the Company does not consider the corporate debt securities to be other-than-temporarily impaired at September 30, 2023.

During the three months ended September 30, 2023 and 2022 we had realized gains (losses) of $0.01 million and $(0.03) million on available-for-sale investments, respectively.

During the nine months ended September 30, 2023 and 2022 we had realized losses of $(0.06) million and $(0.1) million on available-for-sale investments, respectively.

Equity Investments

We held investments in equity securities with readily determinable fair values of $97.5 million at September 30, 2023. These investments consist of mutual funds that invest primarily in tax-free municipal bonds and treasury inflation protected securities.

Unrealized losses during 2023 and 2022 related to equity securities held at September 30, 2023 and 2022 are as follows (in thousands):

	Nine Months Ended September 30,	
	2023	2022
Net losses recognized during the nine months on equity securities	$ (3,765)	$ (12,436)
Less: net gains (losses) recognized during the year on equity securities sold during the period	1,510	—
Unrealized losses recognized during the nine months on equity securities still held at September 30, 2023 and 2022	$ (2,255)	$ (12,436)

Note 8. Fair Value Measurements

We measure fair value based on the prices that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value measurements are based on a three-tier hierarchy that prioritizes the inputs used to measure fair value. These tiers include the following:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that are accessible at the measurement date. The fair value hierarchy gives the highest priority to Level 1 inputs.

Level 2: Observable prices that are based on inputs not quoted on active markets but corroborated by market data. These inputs include quoted prices for similar assets or liabilities; quoted market prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3: Unobservable inputs are used when little or no market data is available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

In determining fair value, we utilize valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible, as well as consider counterparty credit risk in the assessment of fair value.

We did not elect the fair value option, as allowed, to account for financial assets and liabilities that were not previously carried at fair value. Therefore, material financial assets and liabilities that are not carried at fair value, such as trade accounts receivable and payable, are reported at their historical carrying values.

The carrying values of our assets that are required to be measured at fair value on a recurring basis as of September 30, 2023 and 2022 approximate fair value because of our ability to immediately convert these instruments into cash with minimal expected change in value which are classified in the table below in one of the three categories of the fair value hierarchy described above (in thousands):

	Fair Value Measurements			
	Level 1	Level 2	Level 3	Total
September 30, 2023				
Assets:				
Money market mutual fund	$ 18,713	$ —	$ —	$ 18,713
Mutual funds	97,522	—	—	97,522
U.S. Treasury notes	129,931	—	—	129,931
Corporate debt securities	178,936	—	—	178,936
	$ 425,102	$ —	$ —	$ 425,102
Liabilities:				
Convertible Senior Notes	$ —	$ 377,955	$ —	$ 377,955
Contingent consideration	—	—	4,380	4,380
	$ —	$ 377,955	$ 4,380	$ 382,335

	Fair Value Measurements			
	Level 1	Level 2	Level 3	Total
December 31, 2022				
Assets:				
Money market mutual fund	$ 1,843	$ —	$ —	$ 1,843
Mutual funds	99,777	—	—	99,777
U.S. Treasury notes	190,718	—	—	190,718
Corporate debt securities	196,233	—	—	196,233
	$ 488,571	$ —	$ —	$ 488,571
Liabilities:				
Convertible Senior Notes	$ —	$ 406,708	$ —	$ 406,708
Contingent consideration	—	—	4,677	4,677
	$ —	$ 406,708	$ 4,677	$ 411,385

Our equity securities and available-for-sale debt securities, including U.S. treasury notes and U.S. treasury bills are valued using inputs observable in active markets for identical securities and are therefore classified as Level 1 within the fair value hierarchy.

We did not have any financial liabilities measured at fair value on a recurring basis as of September 30, 2023.

We carry the Convertible Senior Notes (see Note 11) at face value less the unamortized discount and issuance costs on our consolidated balance sheets and present fair value for disclosure purposes only. We estimate the fair value of the Convertible Senior Notes using the net present value of the payments, discounted at an interest rate that is consistent with market and risk-adjusted interest rates, which is a Level 2 input.

The following table presents the estimated fair values and the carrying values (in thousands):

	September 30, 2023		December 31, 2022	
	Carrying Value	Fair Value	Carrying Value	Fair Value
2026 Senior Notes	$ 363,791	$ 287,684	$ 392,621	$ 290,132
2025 Senior Notes	$ 14,164	$ 13,115	$ 14,087	$ 12,373

Under the terms of the Critical Transport Solutions Australia (CTSA) acquisition, contingent consideration may be payable in cash based on the achievement of a certain EBITDA target for 2024, with no maximum limit as to the contingent consideration achievable. Under the terms of the F-airGate, Cell&Co, and Polar Expres acquisitions, contingent consideration may be payable in cash based on the achievement of certain future revenue and/or EBITDA targets during each annual period following the acquisition dates for a total of four years, up to a maximum of $6.1 million (undiscounted) in the aggregate. The fair value of the contingent consideration was measured at the end of each reporting period using Level 3 inputs. The fair value of the contingent consideration for the F-airGate and Polar Expres acquisitions was determined using a probability-weighted discounted cash flow model. The fair value of the contingent consideration for the CTSA and Cell&Co acquisitions was valued based on unobservable inputs using a Monte Carlo simulation. These inputs included the estimated amount and timing of projected future revenue, a discount rate, a risk-free rate, asset volatility and revenue volatility. Significant increases (decreases) in any of those inputs in isolation would result in a significantly higher (lower) fair value measurement. The contingent consideration was determined to have an aggregate fair value of $4.4 million and $4.7 million which is reflected as contingent consideration liability in the accompanying consolidated balance sheets as of September 30, 2023 and December 31, 2022, respectively. Certain assumptions used in estimating the fair value of the contingent consideration are uncertain by nature. Actual results may differ materially from estimates.

The (gains)/losses recognized in earnings and the change in net assets related to the contingent consideration at September 30, 2023 were as follows (in thousands):

	Fair Value December 31, 2022	(Gains)/losses recognized in earnings	Payments	Foreign Currency Adjustment	Fair Value September 30, 2023
2021 Acquisitions	$ 902	$ 180	$ —	$ (39)	$ 1,043
2022 Acquisitions	3,775	(122)	(264)	(52)	3,337
	$ 4,677	$ 58	$ (264)	$ (91)	$ 4,380

The net losses recognized in earnings have been reported in operating expenses in the consolidated statement of operations for the nine months ended September 30, 2023.

Note 9. Inventory

Inventories consist of the following (in thousands):

	September 30, 2023	December 31, 2022
Raw materials	$ 17,526	$ 18,287
Work-in-process	1,123	895
Finished goods	10,455	8,496
Total	$ 29,104	$ 27,678

Note 10. Goodwill and Intangible Assets

Goodwill

The following table represents the changes in the carrying value of goodwill as of September 30, 2023 and December 31, 2022 (in thousands):

	September 30, 2023	December 31, 2022
Balance at beginning of year	$ 151,117	$ 146,954
Foreign currency adjustment	(2,170)	(5,391)
Goodwill related to CTSA and F-airGate acquisitions	—	6
Goodwill related to Cell&Co acquisition	—	2,785
Goodwill related to Polar Expres acquisition	7	1,828
Goodwill related to Cell Matters acquisition	—	4,935
Total	$ 148,954	$ 151,117

Intangible Assets

The following table presents our intangible assets as of September 30, 2023 (in thousands):

	Gross Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Amortization Period (years)
Non-compete agreement	$ 390	$ 338	$ 52	1
Technology	49,620	10,219	39,401	9
Customer relationships	131,326	27,902	103,424	11
Trade name/trademark	818	200	618	12
Agent network	10,871	7,500	3,371	1
Order backlog	2,600	2,600	—	—
Land use rights	2,255	293	1,962	35
Patents and trademarks	44,392	258	44,134	—
Total	$ 242,272	$ 49,310	$ 192,962	

The following table presents our intangible assets as of December 31, 2022 (in thousands):

	Gross Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Amortization Period (years)
Non-compete agreement	$ 390	$ 280	$ 110	1
Technology	36,592	8,056	28,536	9
Customer relationships	131,716	21,254	110,462	12
Trade name/trademark	820	158	662	13
Agent network	11,667	6,199	5,468	2
Order backlog	2,600	2,600	—	—
Land use rights	2,378	257	2,121	35
Patents and trademarks	45,181	1,531	43,650	—
Total	$ 231,344	$ 40,335	$ 191,009	

Amortization expense for intangible assets for the three and nine months ended September 30, 2023, was $4.0 million and $11.7 million, respectively. Amortization expense for intangible assets for the three and nine months ended September 30, 2022 was $3.4 million and $11.2 million, respectively.

Expected future amortization of intangible assets as of September 30, 2023 is as follows:

Years Ending December 31,	Amount
Remainder of 2023 (excluding the nine months ended September 30, 2023)	$ 3,914
2024	15,069
2025	13,171
2026	12,927
2027	12,797
Thereafter	83,216
	$ 141,094

Note 11. Convertible Senior Notes

Convertible Senior Notes payable consisted of the following at September 30, 2023 and December 31, 2022 (in thousands):

	September 30, 2023	December 31, 2022
Principal amount of 2025 Senior Notes	$ 14,344	$ 14,344
Principal amount of 2026 Senior Notes	371,185	402,500
Less: unamortized debt issuance costs	(7,574)	(10,136)
Net carrying value of Convertible Senior Notes payable	$ 377,955	$ 406,708

Interest expense incurred in connection with the Convertible Senior Notes consisted of the following for the three and nine months ended September 30, 2023 and 2022 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Coupon interest	$ 852	$ 881	$ 2,576	$ 2,616
Amortization of debt issuance costs	645	635	1,928	1,903
Total interest expense on Convertible Senior Notes	$ 1,497	$ 1,516	$ 4,504	$ 4,519

The Company's 2025 Senior Notes and 2026 Senior Notes payable of $14.3 million and $371.2 million, respectively, are due and payable in 2025 and 2026, respectively.

In September 2023, the Company entered into separate, privately negotiated transactions with certain holders of the 2026 Senior Notes to repurchase $31.3 million in aggregate principal amount of the 2026 Senior Notes for a repurchase price of $25.0 million in cash. The Company recorded $5.7 million as a gain on extinguishment of debt on its condensed consolidated statement of operations for the three and nine months ended September 30, 2023, which includes the write off of $0.6 million of unamortized debt issuance costs. Following these repurchases, approximately $371.2 million principal amount of the 2026 Senior Notes remain outstanding.

See Note 10 – *Convertible Senior Notes* to the Company's consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2022 for additional information related to the Company's Convertible Senior Notes.

Note 12. Notes Payable

Notes payable consisted of the following at September 30, 2023 and December 31, 2022 (in thousands):

	September 30, 2023	December 31, 2022
Principal amount of notes payable	$ 377	$ 415
Less: current portion of notes payable	(70)	(60)
Notes payable – long term	$ 307	$ 355

Interest expense incurred in connection with the notes payable consisted of the following for the three and nine months ended September 30, 2023 and 2022 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Interest expense	$ 1	$ 1	$ 3	$ 3
Amortization of debt discount	—	10	—	30
Total interest expense on notes payable	$ 1	$ 11	$ 3	$ 33

Cell&Co Notes

In connection with the acquisition of Cell&Co, the Company assumed two notes payable totaling €0.4 million ($0.4 million) bearing interest rates of 0.6% and 1.06%, respectively, payable quarterly, maturing in July 2027 and September 2030, respectively.

Future note payments as of September 30, 2023 were as follows (in thousands):

Years Ending December 31,	Amount
2023 (excluding the nine months ended September 30, 2023)	$ 15
2024	74
2025	61
2026	61
2027	57
Thereafter	110
Total note maturities	$ 377

Note 13. Leases

The Company has operating and finance leases for corporate offices and certain equipment. These leases have remaining lease terms of one year to approximately nine years, some of which include options to extend the leases for multiple renewal periods of five years each. Under the terms of the facilities leases, the Company is required to pay its proportionate share of property taxes, insurance and normal maintenance costs.

In October 2022, Cryoport Systems entered into a lease agreement commencing in 2024, for an administrative, global supply chain center and research and development center in Santa Ana, California, in the aggregate rental amount of $27.7 million spanning 10 years. This lease is not included in the balance sheet right-of-use asset and lease liability as it commences in 2024.

The components of lease cost were as follows (in thousands):

	Nine Months Ended September 30,	
	2023	2022
Operating lease cost	$ 5,292	$ 3,937
Finance lease cost:		
Amortization of right-of-use assets	139	43
Interest on finance lease liabilities	36	5
	175	48
Total lease cost	5,467	3,985

Other information related to leases was as follows (in thousands):

Supplemental Cash Flows Information	Nine Months Ended September 30, 2023	2022
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 4,891	$ 3,764
Operating cash flows from finance leases	$ 161	$ 51
Financing cash flows from finance leases	$ 123	$ 44
Right-of-use assets obtained in exchange for lease liabilities (in thousands):		
Operating leases	$ 9,581	$ 5,084
Finance leases	$ 609	$ 205

	September 30, 2023	December 31, 2022
Weighted-Average Remaining Lease Term		
Operating leases	11.2 years	12.4 years
Finance leases	4.2 years	3.4 years
Weighted-Average Discount Rate		
Operating leases	8.7 %	9.5 %
Finance leases	8.5 %	7.8 %

Future minimum lease payments under non-cancellable leases that have commenced as of September 30, 2023 were as follows (in thousands):

Years Ending December 31	Operating Leases	Finance Leases
2023 (excluding the nine months ended September 30, 2023)	$ 1,829	$ 74
2024	7,390	242
2025	6,414	238
2026	5,396	211
2027	4,809	120
Thereafter	31,081	96
Total future minimum lease payments	56,919	981
Less imputed interest	(22,403)	(154)
Total	$ 34,516	$ 827

Reported as of September 30, 2023	Operating Leases	Finance Leases
Current lease liabilities	$ 4,759	$ 195
Noncurrent lease liabilities	29,757	632
Total	$ 34,516	$ 827

Note 14. Commitments and Contingencies

MVE Biological Solutions Fire

On January 25, 2022, a fire occurred at the MVE Biological Solutions manufacturing facility (“New Prague fire”) located in New Prague, Minnesota. The New Prague facility manufactures aluminum dewars and is one of MVE Biological Solutions’ three global manufacturing facilities. There were no injuries reported and damage was limited to a portion of the facility. As a consequence of the fire damage, the New Prague manufacturing operations were curtailed on an interim basis until the necessary repairs were completed. Production was resumed at the facility during the week of February 14, 2022 and ramped up production toward the end of the first quarter of 2022. The Company estimated that the revenue impact of the New Prague fire was approximately $9.4 million and was primarily limited to the first quarter of 2022.

The New Prague fire resulted in a loss of inventory, fixed assets, and other contents at the site. We have adequate property damage and business interruption insurance under which we filed a claim with the insurance carrier. As of September 30, 2023, the Company received a total of $15.1 million in insurance proceeds, of which the final payment of $2.2 million was received in the first quarter of 2023.

For the nine months ended September 30, 2023, the Company recognized a gain of $2.6 million related to business interruption insurance proceeds. Proceeds from insurance settlements, except for those directly related to investing activities, were recognized as cash inflows from operating activities. The losses related to such an event are recognized as incurred. Insurance proceeds are recorded to the extent of the losses and then, only if recovery is realized or probable. Any gains in excess of losses are recognized only when the contingencies regarding the recovery are resolved, and the amount is fixed or determinable.

Employment Agreements

We have entered into employment agreements with certain of our officers under which payment and benefits would become payable in the event of termination by us for any reason other than cause, or upon a change in control of our Company, or by the employee for good reason.

Litigation

The Company may become a party to product litigation in the normal course of business. The Company accrues for open claims based on its historical experience and available insurance coverage. We record a loss contingency when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. We also disclose material contingencies when we believe a loss is not probable but reasonably possible. Accounting for contingencies requires us to use judgment related to both the likelihood of a loss and the estimate of the amount or range of loss. The outcomes of our legal proceedings are inherently unpredictable, subject to significant uncertainties, and could be material to our financial condition, results of operations, and cash flows for a particular period.

Indemnities and Guarantees

The Company has made certain indemnities and guarantees, under which it may be required to make payments to a guaranteed or indemnified party, in relation to certain actions or transactions. The guarantees and indemnities do not provide for any limitation of the maximum potential future payments the Company could be obligated to make. Historically, the Company has not been obligated nor incurred any payments for these obligations and, therefore, no liabilities have been recorded for these indemnities and guarantees in the accompanying consolidated balance sheets.

The Company indemnifies its directors, officers, employees and agents, as permitted under the laws of the States of California and Nevada. In connection with its facility and equipment leases, the Company has indemnified its lessors for certain claims arising from the use of the facilities and equipment. The duration of the guarantees and indemnities varies and is generally tied to the life of the agreements.

Note 15. Stockholders' Equity

Authorized Stock

The Company has 100,000,000 authorized shares of common stock with a par value of $0.001 per share, and 2,500,000 undesignated or "blank check" preferred stock, with a par value of $0.001, of which, 800,000 shares have been designated as Class A Convertible Preferred Stock, 585,000 shares have been designated as Class B Convertible Preferred Stock and 250,000 shares have been designated as 4.0% Series C Convertible Preferred Stock.

Repurchase Program

In March 2022, the Company's Board of Directors authorized a repurchase program (the "Repurchase Program") through December 31, 2025, authorizing the repurchase of common stock and/or convertible senior notes in the amount of up to $100.0 million from time to time, on the open market or otherwise, in such quantities, at such prices, and in such manner as determined by the Company's management at its discretion. The size and timing of any repurchase will depend on a number of factors, including the market price of the Company's common stock, general market and economic conditions, and applicable legal requirements. The Company purchased an aggregate of 1,604,994 shares of its common stock under the Repurchase Program during the year ended December 31, 2022, at an average price of $23.63 per share, for an aggregate purchase price of $37.9 million. These shares were returned to the status of authorized but unissued shares of common stock. All share repurchases were made using cash resources and are reported in the period based on the settlement date of the applicable repurchase. No shares were purchased during the nine months ended September 30, 2023.

In September 2023, the Company repurchased $31.3 million in aggregate principal amount of the 2026 Senior Notes for a repurchase price of $25.0 million in cash. The Company recorded $5.7 million as a gain on extinguishment of debt on its condensed consolidated statement of operations for the three and nine months ended September 30, 2023, which includes the write off of $0.6 million of unamortized debt issuance costs. Following these repurchases, approximately $371.2 million principal amount of the 2026 Senior Notes remain outstanding.

Common Stock Reserved for Future Issuance

As of September 30, 2023, approximately 17.9 million shares of common stock were issuable upon vesting, conversion or exercise of stock options, restricted stock units, the Convertible Senior Notes and the Series C Preferred Stock, as follows:

Exercise of stock options	7,265,701
Vesting of restricted stock units	1,073,840
Conversion of Series C Preferred Stock	5,836,173
Conversion of convertible 2026 Senior Notes	3,156,483
Conversion of convertible 2025 Senior Notes	599,954
Total shares of common stock reserved for future issuances	17,932,151

Note 16. Stock-Based Compensation

Stock Options

During the three and nine months ended September 30, 2023 and 2022, we granted stock options at exercise prices equal to or higher than the quoted market price of our common stock on the grant date. The fair value of each option grant was estimated on the date of grant using Black-Scholes with the following weighted average assumptions:

	September 30,	
	2023	2022
Expected life (years)	3.8 - 5.2	3.8 - 5.2
Risk-free interest rate	3.5% - 4.4%	2.1% - 3.7%
Volatility	69.9% - 80.0%	67.5% - 76.8%
Dividend yield	0%	0%

The expected option life assumption is estimated based on the simplified method. Accordingly, the Company has utilized the average of the contractual term of the options and the weighted average vesting period for all options to calculate the expected option term. The risk-free interest rate assumption is based upon observed interest rates appropriate for the expected term of our employee stock options. The expected volatility is based on the average of the historical volatility and the implied volatility of our stock commensurate with the expected life of the stock-based award. We do not anticipate paying dividends on the common stock in the foreseeable future.

We recognize stock-based compensation cost on a straight-line basis over the vesting period. Stock-based compensation expense is recognized only for those awards that ultimately vest.

Total stock-based compensation expense related to all of our share-based payment awards is comprised of the following:

	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Cost of revenues	$ 604	$ 690	$ 1,655	$ 1,868
Selling, general and administrative	4,904	4,194	13,973	11,541
Engineering and development	468	482	1,332	1,340
	$ 5,976	$ 5,366	$ 16,960	$ 14,749

A summary of stock option activity is as follows:

	Number of Shares	Weighted-Average Exercise Price/Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (1)
Outstanding — December 31, 2022	7,340,521	$ 15.10	—	—
Granted (weighted-average fair value of $12.03 per share)	394,050	21.03	—	—
Exercised	(407,814)	3.63	—	—
Forfeited	(61,056)	30.11	—	—
Outstanding — September 30, 2023	7,265,701	$ 15.93	4.5	$ 27,589
Vested (exercisable) — September 30, 2023	6,223,812	$ 13.50	4.3	$ 27,568
Expected to vest after September 30, 2023 (unexercisable)	1,041,889	$ 30.45	6.0	$ 21

(1) Aggregate intrinsic value represents the difference between the exercise price of the option and the closing market price of our common stock on September 30, 2023, which was $13.71 per share.

Total intrinsic value of options exercised during the nine months ended September 30, 2023 and 2022 was $6.7 million and $4.9 million, respectively.

As of September 30, 2023, there was unrecognized compensation expense of $17.5 million related to unvested stock options, which we expect to recognize over a weighted average period of 1.9 years.

As of September 30, 2023, the Company had 842,685 shares available for future awards under the Cryoport Inc. 2018 Omnibus Equity Incentive Plan.

Restricted stock units

A summary of our restricted stock unit activity is as follows:

	Number of Restricted Stock Units	Weighted Average Fair Value per Share
Outstanding – December 31, 2022	727,984	$ 38.32
Granted	628,625	20.00
Share issuance	(221,623)	37.67
Forfeited	(61,146)	31.57
Outstanding – September 30, 2023	1,073,840	$ 28.11

For the Three months ended September 30, 2023 and 2022, we recorded stock-based compensation expense on our issued restricted stock units of $2.7 million and $2.1 million, respectively. For the nine months ended September 30, 2023 and 2022, we recorded stock-based compensation expense on our issued restricted stock units of $7.3 million and $5.7 million, respectively. As of September 30, 2023 there was unrecognized compensation expense of $24.8 million related to unvested restricted stock units, which we expect to recognize over a weighted average period of 2.7 years.

Note 17. Subsequent Events

See Note 6. Acquisitions for a description of the subsequent events through the filing of this Quarterly Report on Form 10-Q.

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

In this Quarterly Report on Form 10-Q (this "Quarterly Report"), the terms "Cryoport," "Company" and similar terms refer to Cryoport, Inc. and its consolidated subsidiaries, unless the context suggest otherwise.

SAFE HARBOR FOR FORWARD-LOOKING STATEMENTS:

This Quarterly Report contains forward-looking statements that have been made pursuant to the provisions of the Private Securities Litigation Reform Act of 1995 and concern matters that involve risks and uncertainties that could cause actual results to differ materially from those projected in the forward-looking statements. In some cases, you can identify these statements by terminology such as "may," "will," "should," "could," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential," "continue" or similar words which are intended to identify forward-looking statements, although not all forward-looking statements contain these words. Reference is made in particular to forward-looking statements regarding our expectations about future business plans, new products or services, regulatory approvals, strategies, development timelines, prospective financial performance and opportunities, including potential acquisitions; expectations about future benefits of our acquisitions and our ability to successfully integrate those businesses and our plans related thereto; liquidity and capital resources; projected trends in the market in which we operate; anticipated impacts from the coronavirus strain COVID-19 ("COVID-19") on us, including to our business operations, results of operations, cash flows, and financial position, and our future responses to the COVID-19 pandemic; our expectations relating to current supply chain impacts; inflationary pressures and the effect of foreign currency fluctuations; expectations relating to the impacts on our operations resulting from the ongoing war between Russia and Ukraine; anticipated regulatory filings or approvals with respect to the products of our clients; expectations about securing and managing strategic relationships with global couriers or large clinical research organizations; our future capital needs and ability to raise capital on favorable terms or at all; results of our research and development efforts; and approval of our patent applications.

Although we believe that our opinions and expectations reflected in the forward-looking statements are reasonable as of the date of this Quarterly Report, we cannot guarantee future results, levels of activity, performance or achievements, and our actual results may differ substantially from the views and expectations set forth in this Quarterly Report. You should be aware that these statements are projections or estimates as to future events and are subject to a number of factors that may tend to influence the accuracy of the statements, including, but not limited to, risks and uncertainties associated with the effect of changing economic conditions, including as a result of the COVID-19 pandemic and its variants, supply chain constraints, inflationary pressures, the ongoing war between Russia and Ukraine and the effects of foreign currency fluctuations, trends in the products markets, variations in the Company's cash flow, market acceptance risks, and technical development risks. These forward-looking statements should not be regarded as a representation by the Company or any other person that the events or plans of the Company will be achieved. You should not unduly rely on these forward-looking statements, which speak only as of the date of this Quarterly Report. We undertake no obligation to publicly revise any forward-looking statement to reflect circumstances or events after the date of this Quarterly Report or to reflect the occurrence of unanticipated events. You should, however, review the factors and risks we describe in the reports we file from time to time with the Securities and Exchange Commission ("SEC"), including those contained in this Quarterly Report, in our Annual Report on Form 10-K for the year ended December 31, 2022, as filed with the SEC on February 28, 2023 (the "2022 Annual Report"), and those reports filed after the date of this Quarterly Report. Actual results may differ materially from any forward-looking statement due to, among other things, the factors and risks described in our reports filed with the SEC.

The following management's discussion and analysis of the Company's financial condition and results of operations ("MD&A") should be read in conjunction with the condensed consolidated balance sheet as of September 30, 2023 (unaudited) and the consolidated balance sheet as of December 31, 2022 (audited) and the related unaudited condensed consolidated statements of operations, comprehensive loss, and stockholders equity for the three and nine months ended September 30, 2023 and 2022, and cash flows for the nine months ended September 30, 2023 and 2022 and the related notes thereto (see Part I, Item 1. Financial Statements), as well as the audited consolidated financial statements of the Company for years ended December 31, 2022, 2021 and 2020, included in the Company's 2022 Annual Report.

Overview

Cryoport is a leading global provider of innovative products and services supporting the life sciences in the biopharma/pharma, animal health, and reproductive medicine markets. Our mission is to enable the future of medicine for a new era of life sciences. With 48 strategic locations covering the Americas, EMEA (Europe, the Middle East and Africa) and APAC (Asia Pacific), Cryoport's global platform provides mission-critical bio-logistics, bio-storage, bio-processing, and cryogenic systems to over 3,000 customers worldwide. Our platform of solutions and services together with our global team of over 1,000 dedicated colleagues delivers a unique combination of innovative supply chain technologies and services through our industry-leading brands, including Cryoport Systems, IntegriCell™, CryoStork®, MVE Biological Solutions, CRYOPDP, and CRYOGENE.

Cryoport's advanced temperature-controlled supply chain platform is designed to support the global distribution of high-value commercial biologic and cell-based products and therapies regulated by the United States Food and Drug Administration (FDA), the European Medicines Association (EMA) and other international regulatory bodies. Cryoport's solutions are also relied upon for the support of pre-clinical, clinical trials, Investigational New Drug Applications (IND), Biologics License Applications (BLA), and New Drug Applications (NDA) with the FDA, as well as global clinical trials initiated in other geographies, where strict regulatory compliance and quality assurance is mandated.

Over the last several years, we have grown to become a leader in supporting the clinical trials and commercial launches of cell and gene therapies globally. As of September 30, 2023, we supported 670 clinical trials, of which 81 were in Phase 3, and twelve (12) commercial therapies. We believe regenerative medicine advanced therapies that successfully advance through the clinical trial process and receive commercial approval from the respective regulatory agencies will represent opportunities to become significant revenue drivers for us as the majority of them will require comprehensive temperature-controlled supply chain support and other services at commercial scale. Additionally, we expect that most will select us as their critical supply chain solution partner as a result of our work in connection with their respective clinical trials and our long track record of innovation and market responsiveness.

In addition, Cryoport also supports the animal health market and the human reproductive market on a global basis with its advanced supply chain platform. The animal health market is mainly composed of supporting animal husbandry, as well as companion and recreation animal health. The human reproductive market is largely composed of In-Vitro Fertilization (IVF) support for patients and clinics.

Cryoport enables the life sciences to save and improve lives around the world by providing technology-enabled and reliable solutions throughout the temperature-controlled supply chain. Our people, innovative solutions, and industry leading technologies have been designed to exceed current standards to deliver certainty and de-risk the process across the entire temperature-controlled supply chain for the life sciences.

The Markets We Serve

Cryoport serves the life sciences industry as a trusted provider of integrated temperature-controlled supply chain solutions supporting the biopharma/pharma, animal health, and reproductive medicine markets.

Biopharma/Pharma. In the biopharma/pharma market, we are focused on supporting biopharma/pharma companies, primarily, in the saving of lives. From clinical research and development to clinical research organizations, to clinical trials for cell and gene therapies, to the storage and delivery of life-saving commercial cell and gene therapies, to the customers of biopharmaceutical /pharmaceutical organizations, to crucial points of care, we strive to address fundamental to advanced temperature-controlled storage, transport, packaging, fulfillment, and information challenges. Cell and gene therapies have become a rapidly growing area of biological drug development, with over $12 billion in funding raised in 2022. There were 1,457 cell and gene therapy developers worldwide, as reported by the Alliance for Regenerative Medicine (ARM) in its State of the Industry Briefing published on January 9, 2023. These developers have certain supply chain challenges that we believe our solutions are well tailored to address.

- ***Cell Therapies.*** As per ARM, cell therapy is "the administration of viable, often purified cells into a patient's body to grow, replace, or repair damaged tissue for the treatment of a disease. Cell therapies may be autologous, meaning that the patient receives cells from their own body, or they may be allogeneic, meaning the patient receives cells from a donor. Allogeneic cell therapies are often referred to as off-the-shelf therapies, as they are derived from a donor who is not the patient, enabling advance preparation and available to the patient immediately at the time of need."

- ***Gene Therapies.*** As per ARM, "gene therapy seeks to modify or introduce genes into a patient's body with the goal of durably treating, preventing, or potentially even curing disease, including several types of cancer, viral diseases, and inherited disorders."

Animal Health. In the animal health market, we provide support for animal reproduction, which primarily involves the production of protein. We also support medicine for the health of recreational and companion animals. Animal disease prevention and control rely on the safe transport and storage of vaccines and other biological materials around the world. Our secure temperature-controlled supply chain solutions are designed to help avoid costly delays through nonstop monitoring and complete fleet management from and to the origin and destination points as well as provide cryobiological storage equipment.

Reproductive Medicine. In the human reproductive medicine market, we are focused on supporting the creation of human life. This is primarily accomplished by supporting IVF, and related technologies, along with fertility networks globally. IVF materials receive one-on-one handling and individualized attention during the entire logistics process.

Impact of COVID-19

In late 2019, a novel strain of coronavirus that causes coronavirus disease (COVID-19) was reported to have surfaced in Wuhan, China, which has since spread globally. Subsequently, new variants of COVID-19, which are significantly more contagious than previous strains, have emerged. The spread of these new strains initially caused many government authorities and businesses to reimplement prior restrictions, or impose new restrictions, in an effort to lessen the spread of COVID-19 and its variants. While many of these restrictions have been lifted, there continues to be significant uncertainty related to the ultimate duration and impact that this global pandemic will have on future results of our operations, including due to future actions that may be taken by government authorities and businesses in response to surges in COVID-19 cases. Further, virus containment efforts as a result of governmental actions or policies or other initiatives have led to the disruption in the global supply chain and as a result, we have experienced difficulties sourcing materials and equipment, have experienced delays in transportation and increased transportation costs and may incur additional direct costs to provide our solutions in the future. See "Risk Factors—Risk Related to Our Business—We depend on the availability of certain component products used in our solutions; delays or increased costs in the procurement of components manufactured by third parties could adversely affect our business operations, financial performance and results of operations, and we may experience customer dissatisfaction and harm to our reputation" in Part I, Item 1A of our 2022 Annual Report for additional information. Additionally, during the course of the pandemic, certain of our facilities have experienced disruptions, such as our MVE Biological Solutions manufacturing facility in Chengdu, China that was temporarily impacted by COVID lockdowns in China during the third quarter of 2022, and similar disruptions could occur in the future.

We continue to monitor the evolving situation caused by the COVID-19 pandemic, and we may take further actions required by governmental authorities or that we determine are prudent to support the well-being of our employees, customers, suppliers, business partners and others. The degree to which COVID-19 impacts our business operations, financial performance and results of operations will depend on future developments, which are highly uncertain, continuously evolving and cannot be predicted, including, but not limited to, the duration and spread of the COVID-19 outbreak and its variants; its severity; the actions to contain the virus or treat its impact, such as the availability and efficacy of vaccines (particularly with respect to emerging strains of the virus), and the potential hesitancy to utilize them; other protective actions taken to contain the virus or treat its impact, such as restrictions on travel and transportation; general economic factors, such as increased inflation; supply chain constraints; labor supply issues; and how quickly and to what extent normal economic and operating conditions can resume. See “Risk Factors—Risk Related to Our Business—Our business operations, financial performance and results of operations, have been adversely affected and could in the future be materially adversely affected by the COVID-19 pandemic” and the other risk factors discussed in Part I, Item 1A of the 2022 Annual Report for additional information.

MVE Biological Solutions Fire

On January 25, 2022, a fire occurred at the MVE Biological Solutions manufacturing facility located in New Prague, Minnesota (“New Prague fire”). The New Prague facility manufactures aluminum dewars and is one of MVE Biological Solutions’ three global manufacturing facilities. There were no injuries reported and damage was limited to a portion of the facility. As a consequence of the fire damage, the New Prague manufacturing operations were curtailed on an interim basis until the necessary repairs were completed. Production was resumed at the facility during the week of February 14, 2022 and ramped up production toward the end of the first quarter of 2022. The Company estimated a revenue impact of approximately $9.4 million, primarily limited to the first quarter of 2022.

The New Prague fire resulted in a loss of inventory, fixed assets, and other contents at the site. We have adequate property damage and business interruption insurance under which we filed a claim with the insurance carrier. As of September 30, 2023, the Company received a total of $15.1 million in insurance proceeds, of which the final payment of $2.2 million was received in the first quarter of 2023.

Russian Invasion of Ukraine

On February 24, 2022, Russian forces launched significant military actions against Ukraine, and sustained conflict and disruption in the region is likely. Additionally, the U.S. and foreign government bodies in jurisdictions in which we operate have implemented targeted sanctions and export control measures and have announced potential additional sanctions and export control measures, which have and could in the future result in, among other things, severe or complete restrictions on exports to and other commerce and business dealings involving Russia, certain regions of Ukraine, and/or particular entities and individuals. The impact of these government measures, as well as any further retaliatory actions taken by Russia and the U.S. and foreign government bodies, is currently unknown. Potential impacts related to the conflict could include additional unilateral or multilateral export control and sanctions measures, market disruptions, including significant volatility in commodity prices, credit and capital markets, supply chain and logistics disruptions, adverse global economic conditions resulting from escalating geopolitical tensions and the exclusion of Russian financial institutions from the global banking system, volatility and fluctuations in foreign currency exchange rates and interest rates, inflationary pressures on raw materials and heightened cybersecurity threats, which could adversely impact our business, financial condition or results of operations, in particular, CRYOPDP’s business activities in Russia, as well as our other European business operations.

Results of Operations

Three months ended September 30, 2023 compared to three months ended September 30, 2022:

The following table summarizes certain information derived from our unaudited condensed consolidated statements of operations (in thousands):

	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	$ Change	% Change
	($ in 000's)			
Service revenues	$ 36,022	$ 33,296	$ 2,726	8.2%
Product revenues	20,135	27,168	(7,033)	(25.9)%
Total revenues	56,157	60,464	(4,307)	(7.1)%
Cost of service revenues	20,803	18,913	1,890	10.0%
Cost of product revenues	11,088	15,134	(4,046)	(26.7)%
Total cost of revenues	31,891	34,047	(2,156)	(6.3)%
Gross margin	24,266	26,417	(2,151)	(8.1)%
Selling, general and administrative	36,023	30,235	5,788	19.2%
Engineering and development	5,152	3,985	1,167	29.2%
Investment income	2,848	2,485	363	14.6%
Interest expense	(1,357)	(1,609)	252	(15.6)%
Gain on extinguishment of debt, net	5,679	—	5,679	100.0%
Other income (expense), net	(3,059)	1,668	(4,727)	(283.4)%
Provision for income taxes	(471)	(57)	(414)	725.2%
Net loss	$ (13,269)	$ (5,316)	$ (7,953)	149.6%
Paid-in-kind dividend on Series C convertible preferred stock	(2,000)	(2,000)	—	0.0%
Net loss attributable to common stockholders	$ (15,269)	$ (7,316)	$ (7,953)	108.7%

Total revenues by market (in thousands):

	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	$ Change	% Change
Biopharma/Pharma	$ 46,979	$ 48,570	$ (1,591)	(3.3)%
Animal health	6,884	9,629	(2,745)	(28.5)%
Reproductive medicine	2,294	2,265	29	1.3 %
Total revenues	$ 56,157	$ 60,464	$ (4,307)	(7.1)%

Revenues. Revenues decreased by $4.3 million, or 7.1%, from $60.5 million to $56.2 million for the three months ended September 30, 2023, as compared to the same period in 2022.

Revenues by type

Service revenues increased by $2.7 million, or 8.2%, from $33.3 million to $36.0 million for the three months ended September 30, 2023, as compared to the same period in 2022. Bioservices revenue increased by $0.7 million, or 26.1%, to $3.4 million and revenue from the support of commercial cell and gene therapies increased by $2.3 million, or 54.3%, to $6.6 million. These increases were partially offset by clinical trial start delays and slower than expected ramps from certain clients.

Product revenues decreased by $7.0 million, or 25.9%, from $27.2 million to $20.1 million for the three months ended September 30, 2023, as a result of decreased demand for cryogenic systems, particularly in China where product revenues through direct and indirect channels decreased by $4.2 million, or 65%. Product revenues consists primarily of revenue from our portfolio of cryogenic stainless-steel freezers, aluminum dewars and related ancillary equipment used in the storage and transport of life sciences commodities, which includes the rapidly growing cell and gene therapy market through a global network of distributors and direct client relationships.

Revenues by market

Revenue from the biopharma/pharma market decreased by $1.6 million, or 3.3%, from $48.6 million to $47.0 million for the three months ended September 30, 2023, as compared to the same period in 2022. Revenue was impacted by decreased demand for cryogenic systems, particularly in China, where product revenues through direct and indirect channels decreased by $3.5 million, or 77%, clinical trial start delays; and slower than expected ramps of products from certain clients. This was partially offset by the support of commercially launched therapies and demand for our bioservices solutions, which increased by 54.3% to $6.6 million and 26.1% to $3.4 million, respectively, for the three months ended September 30, 2023 as compared to the same period in 2022. We now support 670 clinical trials, of which 516 trials are in the Americas, 112 are in EMEA and 42 are in APAC, compared to 643 clinical trials supported as of September 30, 2022 (496 in the Americas, 105 in EMEA and 42 in APAC). The number of Phase 3 clinical trials supported was 81 trials as of September 30, 2023, of which 57 were in the Americas, 22 in EMEA, and 2 in APAC. This compares to 80 Phase 3 trials (58 in the Americas, 20 in EMEA and 2 in APAC) supported as of September 30, 2022. The activity in the clinical trial space, particularly in the Cell and Gene Therapy market is expected to drive future revenue growth as these clinical trials advance and resulting therapies are commercialized on a global basis.

Our revenue from the animal health market decreased by $2.7 million, or 28.5%, from $9.6 million to $6.9 million for the three months ended September 30, 2023, as compared to the same period in 2022. This decrease was a result of weaker than expected demand for cryogenic systems from breeders.

Revenues in the reproductive medicine market remained flat for the three months ended September 30, 2023, as compared to the same period in 2022. In April 2023, Cryoport signed a three-year agreement with Boston IVF, a fertility treatment provider. Utilizing Cryoport's end-to-end supply chain solutions, Boston IVF plans to integrate its regional and satellite labs across the United States. In addition, in June 2023, Cryoport was selected by IVFAustralia as its exclusive supply chain solutions partner for its global reproductive material shipments.

Gross margin and cost of revenues. Gross margin for the three months ended September 30, 2023 was 43.2% of total revenues, as compared to 43.7% of total revenues for the three months ended September 30, 2022. Cost of total revenues decreased $2.2 million to $31.9 million for the three months ended September 30, 2023, as compared to $34.0 million in the same period in 2022, as a result of the decrease in revenue over the prior year.

Gross margin for our service revenues was 42.2% of service revenues, as compared to 43.2% of service revenues for the three months ended September 30, 2022. Our cost of revenues is primarily comprised of freight charges, payroll and associated expenses related to our global logistics and supply chain centers, depreciation expenses of our Cryoport Express® Shippers and supplies and consumables used for our solutions.

Gross margin for our product revenues was 44.9% of product revenues, as compared to 44.3% of product revenues for the three months ended September 30, 2022. Product revenues, related cost of revenues and resulting gross margins were primarily driven by our MVE Biological Solutions business. Our cost of product revenues were primarily comprised of materials, direct and indirect labor, inbound freight charges, purchasing and receiving, inspection, and distribution and warehousing of inventory. In addition, shop supplies, facility maintenance costs and depreciation expense for assets used in the manufacturing process were included in cost of product revenues.

Selling, general and administrative expenses. Selling, general and administrative (“SG&A”) expenses include the costs associated with selling our services and products, costs required to support our marketing efforts including legal, accounting, patent, and shareholder services, amortization of intangible assets and other administrative functions.

SG&A expenses increased by $5.8 million, or 19.2% as compared to the same period in 2022. This increase was driven by the further buildout of our competencies and infrastructure to support the continuing scaling of our business and demand for Cryoport’s systems and solutions and buildout of new competencies, such as the IntegriCell™ platform, a standardized integrated apheresis collection, cryopreservation and distribution solution for cell therapies for which Cryoport is currently building out two centers of excellence located in Houston, Texas, U.S. and Liège, Belgium which are expected to be fully operational and ready for validation during the second quarter of 2024. Wages and associated employee costs increased $4.1 million from $11.9 million in 2022 to $16.1 million in 2023. Facility and other overhead allocations increased $1.4 million, primarily driven by our facility expansions, depreciation and amortization increased $0.6 million, primarily due to additional fixed assets purchased or acquired in our recent business acquisitions and the launch of Cryoportal® 2 Logistics Management Platform, stock-based compensation expense increased $0.5 million. These increases were partially offset by a decrease of $1.0 million for public company-related expenses (including legal, D&O insurance, audit and internal control audit fees).

Engineering and development expenses. Engineering and development expenses increased by $1.2 million, or 29.2%, for the three months ended September 30, 2023, as compared to the same period in 2022. The increase was primarily due to an increase of $0.7 million in wages and associated employee costs to add software development and engineering resources. We continually strive to improve and expand the features of our Cryoport Express® Solutions and portfolio of services and suite of temperature-controlled products. Our primary developments are directed towards facilitating the safe, reliable and efficient transport and storage of life science commodities through innovative and technology-based solutions. This includes significantly enhancing our Cryoportal® Logistics Management Platform and related technology solutions as well as developments to expand our Cryoport Express® and Cryoport ELITE™ shipper fleet, such as the Cryoport ELITE™ Cryosphere™ shipper, a cryogenic dry-vapor shipper targeted for the cell therapy market utilizing patent pending technology that passively stabilizes the payload through an internal gravitational sphere, thereby further mitigating transport risks for high valued, lifesaving cell therapies. In addition, engineering and development efforts are also focused on MVE Biological Solutions' portfolio of advanced cryogenic systems, including stainless-steel freezers, aluminum dewars, monitoring systems and related ancillary equipment used in the storage and transport of life sciences commodities. We supplement our internal engineering and development resources with subject matter experts and consultants to enhance our capabilities and shorten development cycles.

Investment Income. Investment income increased by $0.4 million for the three months ended September 30, 2023, as compared to the prior year as a result of higher average invested cash balances and higher interest rates on such invested cash balances.

Interest expense. Interest expense increased by $0.3 million for the three months ended September 30, 2023, as compared to the prior year.

Gain on extinguishment of debt, net. In September 2023, the Company repurchased $31.3 million in aggregate principal amount of the 2026 Senior Notes for a repurchase price of $25.0 million in cash resulting in a net gain of $5.7 million, which includes the write off of $0.6 million of unamortized debt issuance costs.

Other income (expense), net. Other income (expense), net decreased by $4.7 million for the three months ended September 30, 2023, as compared to the prior year. This was primarily due the gain on insurance claim of $4.8 million in 2022 related to the New Prague fire that did not occur in the current year. These decreases were partially offset by an increase of $1.6 million in short-term investment net unrealized gains.

Provision for income taxes. The provision for income taxes increased by $0.4 million for the three months ended September 30, 2023, as compared to the three months ended September 30, 2022, resulting in effective tax rates of negative 3.7% and negative 1.1%, respectively. The increase in tax expense and effective tax rate for the three months ended September 30, 2023, as compared to the prior year is due to higher taxable foreign earnings. The negative effective tax rate of 3.7% for the three months ended September 30, 2023, differed from the U.S. federal statutory rate of 21% primarily due to changes in the valuation allowance that we maintain against our deferred tax assets, income earned by certain foreign subsidiaries being taxed at different rates than the U.S. federal statuary rate, and excess tax benefits associated with share-based compensation.

Paid-in-kind dividend on Series C convertible preferred stock. The paid-in-kind dividend relates to the private placement of Series C Preferred Stock with Blackstone.

Nine months ended September 30, 2023 compared to nine months ended September 30, 2022:

The following table summarizes certain information derived from our unaudited condensed consolidated statements of operations (in thousands):

	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022	$ Change	% Change
	($ in 000's)			
Service revenues	$ 107,062	$ 100,791	$ 6,271	6.2%
Product revenues	68,933	76,128	(7,195)	(9.5)%
Total revenues	175,995	176,919	(924)	(0.5)%
Cost of service revenues	59,887	56,742	3,145	5.5%
Cost of product revenues	40,037	42,581	(2,544)	(6.0)%
Total cost of revenues	99,924	99,323	601	0.6%
Gross margin	76,071	77,596	(1,525)	(2.0)%
Selling, general and administrative	108,066	87,420	20,646	23.6%
Engineering and development	13,291	11,045	2,246	20.3%
Investment income	7,962	5,797	2,165	37.3%
Interest expense	(4,197)	(4,686)	489	(10.4)%
Gain on extinguishment of debt, net	5,679	—	5,679	100.0%
Other income (expense), net	242	(7,377)	7,619	(103.3)%
Provision for income taxes	(1,598)	(762)	(836)	109.8%
Net loss	$ (37,198)	$ (27,897)	$ (9,301)	33.3%
Paid-in-kind dividend on Series C convertible preferred stock	(6,000)	(6,000)	—	0.0%
Net loss attributable to common stockholders	$ (43,198)	$ (33,897)	$ (9,301)	27.4%

Total revenues by market (in thousands):

	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022	$ Change	% Change
Biopharma/Pharma	$ 144,634	$ 143,309	$ 1,325	0.9 %
Animal health	23,620	25,985	(2,365)	(9.1)%
Reproductive medicine	7,741	7,625	116	1.5 %
Total revenues	$ 175,995	$ 176,919	$ (924)	(0.5)%

Revenues. Revenues decreased by $0.9 million, or 0.5%, from $176.9 million to $176.0 million for the nine months ended September 30, 2023, as compared to the same period in 2022. This increase over the prior year period was a result of the recovery from the New Prague Fire that negatively impacted the first quarter of 2022 by approximately $9.4 million. This increase was partially offset by decreased demand for cryogenic freezer systems during the second quarter of 2023, particularly in China.

Revenues by type

Service revenues increased by $6.3 million, or 6.2%, from $100.8 million to $107.1 million for the nine months ended September 30, 2023, as compared to the same period in 2022. This increase was driven by customer demand for our supply chain solutions provided by Cryoport Systems, CRYOPDP, and CRYOGENE.

Product revenues decreased by $7.2 million, or 9.5%, from $76.1 million to $68.9 million for the nine months ended September 30, 2023. Product revenues consists primarily of revenue from our portfolio of cryogenic stainless-steel freezers, aluminum dewars and related ancillary equipment used in the storage and transport of life sciences commodities, which includes the rapidly growing cell and gene therapy market through a global network of distributors and direct client relationships.

Revenues by market

Revenue from the biopharma/pharma market increased by $1.3 million, or 0.9%, from $143.3 million to $144.6 million for the nine months ended September 30, 2023, as compared to the same period in 2022. This increase was driven by revenue growth from the support of global clinical trials and commercially launched therapies as well as demand for our bioservices solutions, partially offset by decreased demand for cryogenic freezer systems during the second quarter of 2023, particularly in China. The activity in the clinical trial space, particularly in the Cell and Gene Therapy market is expected to drive future revenue growth as these clinical trials advance and resulting therapies are commercialized on a global basis.

Our revenue from the animal health market decreased by $2.4 million, or 9.1%, from $26.0 million to $23.6 million for the nine months ended September 30, 2023, as compared to the same period in 2022. This decrease was a result of weaker than expected demand for cryogenic systems from breeders.

Revenues in the reproductive medicine market increased by $0.1 million, or 1.5%, from $7.6 million to $7.7 million for the nine months ended September 30, 2023, as compared to the same period in 2022. This increase was driven by demand for our CryoStork® logistics solution, partially offset by a decrease in demand for cryogenic systems.

Gross margin and cost of revenues. Gross margin for the nine months ended September 30, 2023 was 43.2% of total revenues, as compared to 43.9% of total revenues for the nine months ended September 30, 2022. Cost of total revenues increased increased $0.6 million to $99.9 million for the nine months ended September 30, 2023, as compared to $99.3 million in the same period in 2022.

Gross margin for our service revenues was 44.1% of service revenues, as compared to 43.7% of service revenues for the nine months ended September 30, 2022. Our cost of revenues is primarily comprised of freight charges, payroll and associated expenses related to our global logistics and supply chain centers, depreciation expenses of our Cryoport Express® Shippers and supplies and consumables used for our solutions.

Gross margin for our product revenues was 41.9% of product revenues, as compared to 44.1% of product revenues for the nine months ended September 30, 2022. The decrease was driven by unfavorable manufacturing variances during the first quarter of 2023, primarily as a result of inflationary pressures related to certain manufacturing costs and the buildup of safety stock during the second half of 2022, partially offset by favorable product mix. Product revenues, related cost of revenues and resulting gross margins were primarily driven by our MVE Biological Solutions business. Our cost of product revenues were primarily comprised of materials, direct and indirect labor, inbound freight charges, purchasing and receiving, inspection, and distribution and warehousing of inventory. In addition, shop supplies, facility maintenance costs and depreciation expense for assets used in the manufacturing process were included in cost of product revenues.

Selling, general and administrative expenses. Selling, general and administrative ("SG&A") expenses include the costs associated with selling our products and services and costs required to support our marketing efforts including legal, accounting, patent, shareholder services, amortization of intangible assets and other administrative functions.

SG&A expenses increased by $20.6 million, or 23.6% as compared to the same period in 2022. This increase is driven by the further buildout of our competencies and infrastructure to support the continuing scaling of our business and demand for Cryoport's systems and solutions and buildout of new competencies, such as the IntegriCell™ platform, a standardized integrated apheresis collection, cryopreservation and distribution solution for cell therapies for which Cryoport is currently building out two centers of excellence located in Houston, Texas, U.S. and Liège, Belgium which are expected to be fully operational and ready for validation during the second quarter of 2024. Wages and associated employee costs increased $8.8 million from $36.7 million in 2022 to $45.5 million in 2023. Integration and acquisition costs increased $4.8 million, primarily as a result of actively exploring a strategic business opportunity, facility and other overhead allocations increased $2.8 million, primarily driven by our facility expansions in Houston, Texas and Morris Plains, New Jersey, stock compensation expense increased $1.9 million, depreciation and amortization increased $1.8 million, primarily due to additional fixed assets purchased or acquired in our recent business acquisitions and the launch of Cryoportal® 2 Logistics Management Platform in May 2023. These increases were partially offset by a decrease of $1.1 million in public company related expenses (including legal, D&O insurance, audit and internal control audit fees).

Engineering and development expenses. Engineering and development expenses increased by $2.2 million, or 20.3%, for the nine months ended September 30, 2023, as compared to the same period in 2022. The increase was primarily due to an increase of $1.1 million in wages and associated employee costs to add software development and engineering resources. We continually strive to improve and expand the features of our Cryoport Express® Solutions and portfolio of services and suite of temperature-controlled products. Our primary developments are directed towards facilitating the safe, reliable and efficient transport and storage of life science commodities through innovative and technology-based solutions. This includes significantly enhancing our Cryoportal® Logistics Management Platform and related technology solutions as well as developments to expand our Cryoport Express® and Cryoport ELITE™ shipper fleet, such as the Cryosphere™ shipper, a cryogenic dry-vapor shipper utilizing patent pending technology that passively stabilizes the payload through an internal gravitational sphere, thereby further mitigating transport risks. In addition, engineering and development efforts are also focused on MVE Biological Solutions' portfolio of advanced cryogenic stainless-steel freezers, aluminum dewars and related ancillary equipment used in the storage and transport of life sciences commodities. We supplement our internal engineering and development resources with subject matter experts and consultants to enhance our capabilities and shorten development cycles.

Investment Income. Investment income increased by $2.2 million, for the nine months ended September 30, 2023, as compared to the prior year as a result of higher average invested cash balances and higher interest rates on such invested cash balances.

Interest expense. Interest expense increased by $0.5 million for the nine months ended September 30, 2023, as compared to the prior year.

Gain on extinguishment of debt, net. In September 2023, the Company repurchased $31.3 million in aggregate principal amount of the 2026 Senior Notes for a repurchase price of $25.0 million in cash resulting in a net gain of $5.7 million, which includes the write off of $0.6 million of unamortized debt issuance costs.

Other income (expense), net. Other income (expense), net increased by $7.6 million for the nine months ended September 30, 2023, as compared to the prior year. This was primarily due to an increase of $10.2 million in short-term investment net unrealized gains and an increase in foreign currency fluctuations of $0.5 million. These increases were partially offset by a decrease in the gain on insurance claim of $2.2 million related to the New Prague fire as compared to the prior year.

Provision for income taxes. The provision for income taxes increased by $0.8 million for the nine months ended September 30, 2023, as compared to the nine months ended September 30, 2022, resulting in effective tax rates of negative 4.5% and negative 2.8%, respectively. The increase in tax expense and effective tax rate for the nine months ended September 30, 2023, as compared to the prior year is due to higher taxable foreign earnings. The negative effective tax rate of 4.5% for the nine months ended September 30, 2023 differed from the U.S. federal statutory rate of 21% primarily due to changes in the valuation allowance that we maintain against our deferred tax assets, income earned by certain foreign subsidiaries being taxed at different rates than the U.S. federal statuary rate, and excess tax benefits associated with share-based compensation.

Paid-in-kind dividend on Series C convertible preferred stock. The paid-in-kind dividend relates to the private placement of Series C Preferred Stock with Blackstone.

Non-GAAP Financial Measures

We provide adjusted EBITDA and revenue at constant currency, both non-GAAP financial measures, as supplemental measures to U.S. GAAP measures regarding our operating performance. Non-GAAP financial measures are not calculated in accordance with U.S. GAAP, are not based on any comprehensive set of accounting rules or principles and may be different from non-GAAP financial measures presented by other companies. Non-GAAP financial measures, including adjusted EBITDA and revenue at constant currency, should not be considered as a substitute for, or superior to, measures of financial performance prepared in accordance with U.S. GAAP.

Adjusted EBITDA

Adjusted EBITDA is defined as net loss adjusted for interest expense, income taxes, depreciation and amortization expense, stock-based compensation expense, acquisition and integration costs, investment income, unrealized gain or loss on investments, foreign currency gain or loss, gain on insurance claim, and charges or gains resulting from non-recurring events.

Management believes adjusted EBITDA provides a useful measure of our operating results, a meaningful comparison with historical results and with the results of other companies, and insight into our ongoing operating performance. Further, management and our board of directors utilize adjusted EBITDA to gain a better understanding of our comparative operating performance from period-to-period and as a basis for planning and forecasting future periods. Adjusted EBITDA is also a significant performance measure used by us in connection with our incentive compensation programs. Management believes adjusted EBITDA, when read in conjunction with our U.S. GAAP financials, is useful to investors because it provides a basis for meaningful period-to-period comparisons of our ongoing operating results, including results of operations, against investor and analyst financial models, identifying trends in our underlying business and performing related trend analyses, and it provides a better understanding of how management plans and measures our underlying business.

A reconciliation of adjusted EBITDA to net loss, the most directly comparable U.S. GAAP financial measure, is presented below.

Cryoport, Inc. and Subsidiaries
Adjusted EBITDA Reconciliation
(Unaudited, in thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
GAAP net loss	$ (13,269)	$ (5,316)	$ (37,198)	$ (27,897)
Non-GAAP adjustments to net loss:				
Depreciation and amortization expense	6,911	5,787	20,038	16,631
Acquisition and integration costs	675	721	6,304	1,544
Investment income	(2,848)	(2,485)	(7,962)	(5,797)
Unrealized loss on investments	2,336	3,914	2,300	12,550
Gain on insurance claim	—	(4,815)	(2,642)	(4,815)
Foreign currency (gain)/loss	710	(128)	114	628
Interest expense, net	1,357	1,609	4,197	4,686
Stock-based compensation expense	5,976	5,366	16,960	14,749
Gain on extinguishment of debt, net	(5,679)	—	(5,679)	—
Other non-recurring costs	250	—	250	—
Income taxes	471	57	1,598	762
Adjusted EBITDA	$ (3,110)	$ 4,710	$ (1,720)	$ 13,041

Revenue at Constant Currency

We believe that revenue growth is a key indicator of how our Company is progressing from period to period and we believe that the non-GAAP financial measure “revenue at constant currency” is useful to investors in analyzing the underlying trends in revenue. Under U.S. GAAP, revenues received in local (non-U.S. dollar) currency are translated into U.S. dollars at the average exchange rate for the period presented. As a result, fluctuations in foreign currency exchange rates affect the results of our operations and the value of our foreign assets and liabilities, which in turn may adversely affect results of operations and cash flows and the comparability of period-to-period results of operations. When we use the term “constant currency,” it means that we have translated local currency revenues for the current reporting period into U.S. dollars using the same average foreign currency exchange rates for the conversion of revenues into U.S. dollars that we used to translate local currency revenues for the comparable reporting period of the prior year.

Recent fluctuations in foreign currency exchange rates, including the increased strength of the U.S. dollar against the Euro, British Pound, Chinese Yuan, and Indian Rupee has adversely impacted our results of operations and cash flow from our operations in EMEA and APAC. For the three and nine months ended September 30, 2023, our revenues would have been approximately $0.6 million lower and $1.2 million higher, respectively, in constant currency.

However, we also believe that data on constant currency period-over-period changes have limitations, particularly as the currency effects that are eliminated could constitute a significant element of our revenue and could significantly impact our performance. We therefore limit our use of constant currency period-over-period changes to a measure for the impact of currency fluctuations on the translation of local currency revenue into U.S. dollars. We do not evaluate our results and performance without considering both period-over-period changes in non-GAAP constant currency revenue on the one hand and changes in revenue prepared in accordance with U.S.

GAAP on the other. We caution the readers of this report to follow a similar approach by considering revenue on constant currency period-over-period changes only in addition to, and not as a substitute for, or superior to, changes in revenue prepared in accordance with U.S. GAAP.

Cryoport, Inc. and Subsidiaries
Revenues by Market at Constant Currency
(Unaudited, in thousands)

	Three Months Ended September 30, 2023			
	Biopharma/ Pharma	Animal Health	Reproductive Medicine	Total
As Reported	$ 46,979	$ 6,884	$ 2,294	$ 56,157
Non-GAAP Constant Currency	46,417	6,864	2,289	55,570
FX Impact [$]	$ 562	$ 20	$ 5	$ 587
FX Impact [%]	1.2 %	0.3 %	0.2 %	1.0 %

	Nine Months Ended September 30, 2023			
	Biopharma/ Pharma	Animal Health	Reproductive Medicine	Total
As Reported	$ 144,634	$ 23,620	$ 7,741	$ 175,995
Non-GAAP Constant Currency	145,411	23,993	7,742	177,146
FX Impact [$]	$ (777)	$ (373)	$ (1)	$ (1,151)
FX Impact [%]	(0.5)%	(1.6)%	(0.0)%	(0.7)%

Liquidity and Capital Resources

As of September 30, 2023, the Company had cash and cash equivalents of $59.5 million, $406.4 million in short-term investments and had working capital of $504.2 million. We expect to continue to incur significant expenses in the foreseeable future and to incur operating losses in the near term while we make investments in new supply chain initiatives, geographic expansion and technology to support our anticipated growth. Historically, we have financed our operations primarily through sales of equity securities and debt instruments.

The Company’s management recognizes that the Company may need to obtain additional capital to fund its operations and potential acquisitions until sustained profitable operations are achieved. Additional funding plans may include obtaining additional capital through equity and/or debt funding sources. No assurance can be given that additional capital, if needed, will be available when required or upon terms acceptable to the Company. The Company’s management believes that, based on its current plans and assumptions, the current cash and cash equivalents on hand, short-term investments, together with projected cash flows, will satisfy our operational and capital requirements for at least the next twelve months.

Cash flows Summary

	For the Nine Months Ended September 30,		
	2023	2022	$ Change
	(in thousands)		
Operating activities	$ (3,239)	$ (5,505)	$ 2,266
Investing activities	50,805	(66,805)	117,610
Financing activities	(23,672)	(33,868)	10,196
Effect of exchange rate changes on cash and cash equivalents	(1,016)	(2,199)	1,183
Net increase in cash and cash equivalents	$ 22,878	$ (108,377)	$ 131,255

Operating activities

For the nine months ended September 30, 2023, our cash used in operating activities of $3.2 million reflects the net loss of $37.2 million offset by non-cash expenses of $37.5 million primarily comprised of $20.0 million of depreciation and amortization, $17.0

million of stock-based compensation, $3.4 million of non-cash operating lease expense, which was partially offset by a gain on the extinguishment of debt of $5.7 million, and a gain on the insurance settlement of $2.6 million related to the fire at our New Prague, Minnesota manufacturing plant in January 2022. Also contributing to the cash impact of our net operating loss, excluding non-cash items was a decrease in operating lease liabilities of $3.0 million, an increase in prepaid expenses and other current assets of $2.3 million and an increase in inventories of $1.6 million, which were partially offset by an increase in accrued compensation and related expenses of $2.0 million, an increase in deferred revenue of $1.1 million, and a decrease in accounts receivable of $1.1 million.

Investing activities

Net cash provided by investing activities of $50.8 million during the nine months ended September 30, 2023 was primarily due to the maturity of short-term investments of $82.5 million which was partially offset by facility expansions (including leasehold improvements, furniture and equipment) and additional purchases of Cryoport Express® Shippers, Smart Pak II™ Condition Monitoring Systems, freezers and computer equipment for $27.2 million.

Financing activities

Net cash used in financing activities totaled $23.7 million during the nine months ended September 30, 2023, as a result of $25.0 million paid for the repurchase of 2026 Senior Notes, partially offset by proceeds of $1.5 million from the exercise of stock options.

Repurchase Program

On March 11, 2022, the Company announced that its board of directors authorized a repurchase program (the "Repurchase Program") through December 31, 2025, authorizing the repurchase of common stock and/or convertible senior notes in the amount of up to $100.0 million from time to time on the open market or otherwise, in such quantities, at such prices, and in such manner as determined by the Company's management at its discretion. The size and timing of any repurchase will depend on a number of factors, including the market price of the Company's common stock, general market and economic conditions, and applicable legal requirements. The Company purchased an aggregate of 1,604,994 shares of its common stock under the Repurchase Program through December 31, 2022, at an average price of $23.63 per share, for an aggregate purchase price of $37.9 million. These shares were returned to the status of authorized but unissued shares of common stock. There were no shares repurchased during the nine months ended September 30, 2023.

In September 2023, the Company repurchased $31.3 million in aggregate principal amount of the 2026 Senior Notes for a repurchase price of $25.0 million in cash. The Company recorded $5.7 million as a gain on extinguishment of debt on its condensed consolidated statement of operations for the three and nine months ended September 30, 2023, which includes the write off of $0.6 million of unamortized debt issuance costs. Following these repurchases, approximately $371.2 million principal amount of the 2026 Senior Notes remain outstanding.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risk for the effect of interest rate changes, foreign currency fluctuations, and changes in the market values of our investments.

Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio and our long-term debt. Our long-term debt is carried at amortized cost and fluctuations in interest rates do not impact our consolidated financial statements. However, the fair value of our debt, which pays interest at a fixed rate, will generally fluctuate with movements of interest rates, increasing when interest rates are declining and declining when interest rates are increasing. We invest our excess cash in high investment grade money market funds and investment grade short to intermediate-term fixed income securities. Fixed income securities may have their fair market value adversely affected due to a rise in interest rates, and we may suffer losses if forced to sell securities that have declined in market value due to changes in interest rates. As of September 30, 2023, the estimated fair value of the Convertible Senior Notes was $300.8 million. For additional information about the Convertible Senior Notes, see Note 11 in our accompanying consolidated financial statements.

Foreign Exchange Risk

We operate in the United States and other foreign countries, which creates exposure to foreign currency exchange fluctuations. Net sales and related expenses generated from our international business are primarily denominated in the functional currencies of the corresponding subsidiaries and primarily include Euros, British Pounds, Chinese Yuan, and Indian Rupee. The results of operations of, and certain of our intercompany balances associated with, our internationally focused business are exposed to foreign exchange rate fluctuations. Upon consolidation, as foreign exchange rates vary, revenues and other operating results may differ materially from expectations and we may record material gain or losses on the remeasurement of intercompany balances. For example, for the nine months ended September 30, 2023, revenues from our international business, which accounted for 38% of our consolidated revenues, decreased by $1.4 million in comparison with the same period in the prior year as a result of fluctuations in foreign exchange rates. The impact of fluctuations in foreign exchange rates is derived by applying the average currency rates for the same period of the prior year to the current period revenues.

We have foreign exchange risk related to foreign-denominated cash and cash equivalents. Based on the foreign-denominated cash balance as of September 30, 2023, of $28.3 million, an assumed 5%, 10%, and 20% adverse change to foreign exchange would result in declines of $1.4 million, $2.8 million, and $5.7 million, respectively, reported as accumulated other comprehensive income (loss) and included as a separate component of stockholders' equity.

We have foreign exchange risk related to our long and short-term foreign-denominated intercompany loan balances. Based on the long-term intercompany loan balances as of September 30, 2023, an assumed 5%, 10%, and 20% adverse change to foreign exchange would result in losses of $4.1 million, $8.2 million, and $16.4 million, respectively, reported as accumulated other comprehensive income (loss). Based on the short-term intercompany loan balances as of September 30, 2023, an assumed 5%, 10%, and 20% adverse change to foreign exchange would result in losses of $1.7 million, $3.4 million, and $6.9 million, respectively, reported as "Other income (expense), net".

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures.

We maintain disclosure controls and procedures (as defined in Rule 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we have conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of September 30, 2023. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of September 30, 2023.

In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can only provide reasonable assurance of achieving the desired control objectives, and in reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Changes in internal control over financial reporting.

There were no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act) during the fiscal quarter ended September 30, 2023 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

In the ordinary course of business, we are at times subject to various legal proceedings and disputes, including product liability claims. We currently are not aware of any such legal proceedings or claim that we believe will have, individually or in the aggregate, a material adverse effect on our business, operating results or cash flows. It is our practice to accrue for open claims based on our historical experience and available insurance coverage.

ITEM 1A. RISK FACTORS

In addition to the other information set forth in this Quarterly Report, you should carefully consider the risk factors described in Part I, Item 1A, Risk Factors, in the 2022 Annual report and the risk factor described below, which could materially and adversely affect our business, financial condition and results of operations. These risk factors do not identify all of the risks that we face. Our business, financial condition and results of operations could also be affected by factors that are not presently known to us or that we currently consider to be immaterial.

Risks Related to Our Business

An impairment of our goodwill or intangible assets could have a material non-cash adverse impact on our results of operations.

We assess goodwill for impairment on an annual basis in the fourth quarter or more frequently if we believe indicators of impairment exist. In addition, intangible assets and their related useful lives are reviewed at least annually to determine whether there are any adverse conditions that would indicate the carrying value of these assets may not be recoverable. Our valuation methodology for assessing impairment requires management to make judgments and assumptions based on experience and to rely heavily on projections of future operating performance. Because we operate in highly competitive environments, projections of our future operating results and cash flows may vary significantly from our actual results. If in future periods we determine that our goodwill or intangible assets are impaired, we will recognize a non-cash impairment charge with respect to these assets, which would adversely affect our results of operations.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES, USE OF PROCEEDS, AND ISSUER PURCHASES OF EQUITY SECURITIES

Recent Sale of Unregistered Securities

There were no unregistered sales of equity securities during the quarter ended September 30, 2023.

Issuer Purchases of Equity Securities

None

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable

ITEM 5. OTHER INFORMATION

Insider Trading Arrangements and Policies

During the three months ended September 30, 2023, none of our directors or officers (as defined in Exchange Act Rule 16a-1(f)) adopted or terminated a “Rule 10b5–1 trading arrangement” or a “non-Rule 10b5–1 trading arrangement,” each as defined in Item 408 of Regulation S-K of the Securities Act of 1933, as amended.

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ITEM 6. EXHIBITS

Exhibit Index	
31.1+	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2+	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1+	Certification pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS+	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH+	Inline XBRL Taxonomy Extension Schema Document.
101.CAL+	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF+	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB+	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE+	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104+	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

\+ Filed or furnished herewith.

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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.

Cryoport, Inc.

Dated: November 9, 2023

By: */s/ Jerrell W. Shelton*
Jerrell W. Shelton
President and Chief Executive Officer

Dated: November 9, 2023

By: */s/ Robert S. Stefanovich*
Robert S. Stefanovich
Chief Financial Officer

EXHIBIT 31.1

CERTIFICATION
OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Jerrell W. Shelton, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Cryoport, 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: November 9, 2023

/s/ Jerrell W. Shelton
JERRELL W. SHELTON
President and Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION
OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Robert S. Stefanovich, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Cryoport, 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: November 9, 2023

/s/ Robert S. Stefanovich
ROBERT S. STEFANOVICH
Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 32.1

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 Cryoport, Inc. (the “Company”) on Form 10-Q for the period ended September 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Jerrell W. Shelton, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge that:

(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/ Jerrell W. Shelton

JERRELL W. SHELTON
President and Chief Executive Officer

November 9, 2023

In connection with the Quarterly Report of Cryoport, Inc. (the “Company”) on Form 10-Q for the period ended September 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Robert S. Stefanovich, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge that:

(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/ Robert S. Stefanovich

ROBERT S. STEFANOVICH
Chief Financial Officer

November 9, 2023

A signed original of this written statement required by Section 906 has been provided to Cryoport, Inc. and will be retained by Cryoport, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

This Certification is being furnished pursuant to Rule 15(d) and shall not be deemed “filed” for purposes of Section 18 of the Exchange Act (15 U.S.C. 78r), or otherwise subject to the liability of that section. This Certification shall not be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.