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

Form 10-Q

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

For the quarterly period ended June 30, 2019

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

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.)**

17305 Daimler St.
Irvine, CA 92614
(Address of principal executive offices)

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

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

Title of each class:	**Trading Symbol(s)**	**Name of each exchange on which registered:**
Common Stock	CYRX	The Nasdaq Capital Market
Registered Warrants	CYRXW	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 x 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 x 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	x
Non-accelerated filer	¨	Smaller reporting company	x
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 x

As of August 2, 2019 there were 35,592,828 shares of the registrant's common stock outstanding.

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Cryoport, Inc. and Subsidiaries
Condensed Consolidated Balance Sheets

	June 30, 2019 (unaudited)	December 31, 2018
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 80,642,213	$ 37,327,125
Short-term investments	14,103,653	9,930,968
Accounts receivable, net	6,095,858	3,543,666
Inventories	306,438	220,514
Prepaid expenses and other current assets	526,648	752,269
Total current assets	101,674,810	51,774,542
Property and equipment, net	10,338,007	4,357,498
Operating lease right-of-use assets	4,160,747	—
Goodwill	11,149,663	—
Other intangible assets, net	5,415,499	137,220
Deposits	407,369	350,837
Total assets	$ 133,146,095	$ 56,620,097
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable and other accrued expenses	$ 3,416,805	$ 1,709,397
Accrued compensation and related expenses	1,534,468	1,262,478
Current portion of operating lease liabilities	534,586	—
Current portion of finance lease liabilities	25,940	23,191
Deferred revenue	221,776	66,315
Total current liabilities	5,733,575	3,061,381
Convertible note, net of discount of $277,375 and $288,400, respectively	14,722,625	14,711,580
Operating lease liabilities, net of current portion	3,920,739	—
Finance lease liabilities, net of current portion	18,981	33,156
Deferred rent liability, net of current portion	—	267,415
Total liabilities	24,395,920	18,073,532
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	—	—
Common stock, $0.001 par value; 100,000,000 shares authorized; 35,485,570 and 30,319,038 issued and outstanding at June 30, 2019 and December 31, 2018, respectively	35,486	30,319
Additional paid-in capital	254,580,262	179,501,577
Accumulated deficit	(145,903,877)	(140,988,484)
Accumulated other comprehensive income	38,304	3,153
Total stockholders' equity	108,750,175	38,546,565
Total liabilities and stockholders' equity	$ 133,146,095	$ 56,620,097

See accompanying notes to condensed consolidated financial statements.

Cryoport, Inc. and Subsidiaries
Condensed Consolidated Statements of Operations
(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	**2018**	**2019**	**2018**
Revenues	$ 8,463,588	$ 4,627,011	$ 15,116,500	$ 8,650,200
Cost of revenues	4,125,199	2,123,304	7,324,210	3,962,130
Gross margin	4,338,389	2,503,707	7,792,290	4,688,070
Operating costs and expenses:				
General and administrative	3,258,781	2,668,845	5,955,640	4,737,355
Sales and marketing	2,843,073	1,851,456	5,251,065	3,435,884
Engineering and development	540,933	448,591	1,030,529	778,321
Total operating costs and expenses	6,642,787	4,968,892	12,237,234	8,951,560
Loss from operations	(2,304,398)	(2,465,185)	(4,444,944)	(4,263,490)
Other income (expense):				
Interest expense	(333,910)	—	(672,638)	—
Warrant inducement and repricing expense	—	—	—	(899,410)
Other income, net	119,441	7,120	210,913	22,888
Loss before provision for income taxes	(2,518,867)	(2,458,065)	(4,906,669)	(5,140,012)
Provision for income taxes	(9,624)	(12,825)	(8,724)	(13,638)
Net loss	$ (2,528,491)	$ (2,470,890)	$ (4,915,393)	$ (5,153,650)
Net loss per share – basic and diluted	$ (0.08)	$ (0.09)	$ (0.16)	$ (0.19)
Weighted average shares outstanding – basic and diluted	31,176,166	27,808,873	30,811,109	27,294,384

See accompanying notes to condensed consolidated financial statements.

Cryoport, Inc. and Subsidiaries
Condensed Consolidated Statements of Comprehensive Loss

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net loss	$ (2,528,491)	$ (2,470,890)	$ (4,915,393)	$ (5,153,650)
Other comprehensive income (loss), net of tax:				
Net unrealized gain on available-for-sale debt securities	37,905	—	59,612	—
Reclassification of realized gain on available-for-sale debt securities to earnings	(18,913)	—	(12,846)	—
Foreign currency translation adjustments	(1,535)	—	(11,615)	—
Other comprehensive income	17,457	—	35,151	—
Total comprehensive loss	$ (2,511,034)	$ (2,470,890)	$ (4,880,242)	$ (5,153,650)

Cryoport, Inc. and Subsidiaries
Condensed Consolidated Statements of Stockholders' Equity

	Class A Preferred Stock		Class B Preferred Stock		Common Stock		Additional Paid–In	Accumulated	Accumulated Other Comprehensive	Total Stockholders'
	Shares	Amount	Shares	Amount	Shares	Amount	Capital	Deficit	Income	Equity (Deficit)
Balance at March 31, 2018	—	$ —	—	$ —	27,593,118	$ 27,593	$ 156,541,327	$ (134,115,643)	$ —	$ 22,453,277
Net loss	—	—	—	—	—	—	—	(2,470,890)	—	(2,470,890)
Stock-based compensation expense	—	—	—	—	—	—	1,428,230	—	—	1,428,230
Issuance of common stock for board of director compensation	—	—	—	—	1,157	1	17,499	—	—	17,500
Proceeds from exercise of stock options and warrants	—	—	—	—	856,378	857	2,992,742	—	—	2,993,599
Balance June 30, 2018	—	$ —	—	$ —	28,450,653	$ 28,451	$ 160,979,798	$ (136,586,533)	$ —	$ 24,421,716
Balance at March 31, 2019	—	$ —	—	$ —	30,677,500	$ 30,678	$ 182,230,799	$ (143,375,386)	$ 20,847	$ 38,906,938
Net loss	—	—	—	—	—	—	—	(2,528,491)	—	(2,528,491)
Other comprehensive income, net of taxes	—	—	—	—	—	—	—	—	17,457	17,457
Stock-based compensation expense	—	—	—	—	—	—	1,959,588	—	—	1,959,588
Proceeds from public offering, net of costs of $106,300	—	—	—	—	4,312,500	4,313	68,803,133	—	—	68,807,446
Issuance of common stock for board of director compensation	—	—	—	—	1,920	2	32,165	—	—	32,167
Proceeds from exercise of stock options and warrants	—	—	—	—	493,650	493	1,554,577	—	—	1,555,070
Balance at June 30, 2019	—	$ —	—	$ —	35,485,570	$ 35,486	$ 254,580,262	$ (145,903,877)	$ 38,304	$ 108,750,175
Balance at December 31, 2017	—	$ —	—	$ —	25,701,924	$ 25,702	$ 149,293,947	$ (131,432,883)	$ —	$ 17,886,766
Net loss	—	—	—	—	—	—	—	(5,153,650)	—	(5,153,650)
Stock-based compensation expense	—	—	—	—	—	—	2,460,239	—	—	2,460,239
Warrant repricing expense	—	—	—	—	—	—	899,410	—	—	899,410
Proceeds from tender offer, net of costs of $99,357	—	—	—	—	1,580,388	1,580	4,640,227	—	—	4,641,807
Issuance of common stock for board of director compensation	—	—	—	—	3,095	3	34,997	—	—	35,000
Proceeds from exercise of stock options and warrants	—	—	—	—	1,165,246	1,166	3,650,978	—	—	3,652,144
Balance June 30, 2018	—	$ —	—	$ —	28,450,653	$ 28,451	$ 160,979,798	$ (136,586,533)	$ —	$ 24,421,716
Balance at December 31, 2018	—	$ —	—	$ —	30,319,038	$ 30,319	$ 179,501,577	$ (140,988,484)	$ 3,153	$ 38,546,565
Net loss	—	—	—	—	—	—	—	(4,915,393)	—	(4,915,393)
Other comprehensive income, net of taxes	—	—	—	—	—	—	—	—	35,151	35,151
Stock-based compensation expense	—	—	—	—	—	—	3,355,824	—	—	3,355,824
Proceeds from public offering, net of costs of $106,300	—	—	—	—	4,312,500	4,313	68,803,133	—	—	68,807,446
Issuance of common stock for board of director compensation	—	—	—	—	3,239	3	49,663	—	—	49,666
Proceeds from exercise of stock options and warrants	—	—	—	—	850,793	851	2,870,065	—	—	2,870,916
Balance at June 30, 2019	—	$ —	—	$ —	35,485,570	$ 35,486	$ 254,580,262	$ (145,903,877)	$ 38,304	$ 108,750,175

See accompanying notes to condensed consolidated financial statements.

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

	For the Six Months Ended June 30,	
	2019	**2018**
Cash Flows From Operating Activities:		
Net loss	$ (4,915,393)	$ (5,153,650)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	797,255	379,193
Amortization of debt discount	30,793	—
Unrealized gain on investments in equity securities	(75,348)	—
Realized gain on Treasury notes and bills	(29,911)	—
Stock-based compensation expense	3,405,490	2,495,239
Warrant inducement and repricing expense	—	899,410
Loss on disposal of property and equipment	100,254	62,446
Provision for bad debt	42,042	35,675
Changes in operating assets and liabilities, net of effects of acquisition:		
Accounts receivable	(2,594,234)	(2,029,128)
Inventories	(85,924)	17,506
Prepaid expenses and other current assets	225,402	25,369
Change in operating lease right-of-use assets and lease liabilities	(14,977)	—
Deposits	(56,532)	—
Accounts payable and other accrued expenses	1,712,648	961,787
Accrued compensation and related expenses	271,779	(22,595)
Deferred revenue	(64,830)	—
Net cash used in operating activities	(1,251,486)	(2,328,748)
Cash Flows From Investing Activities:		
Purchases of property and equipment	(2,578,145)	(969,083)
Purchases of short-term investments	(6,020,660)	—
Maturities of short-term investments	2,000,000	—
Patent and trademark costs	(43,029)	(27,172)
Cash paid for acquisition	(20,429,651)	—
Net cash used in investing activities	(27,071,485)	(996,255)
Cash Flows From Financing Activities:		
Proceeds from June 2019 public offering, net of offering costs	68,807,446	—
Proceeds from February 2018 tender offer, net of offering costs	—	4,641,807
Proceeds from exercise of stock options and warrants	2,870,916	3,652,144
Payment of deferred financing costs	(19,748)	—
Repayment of finance lease liabilities	(11,426)	—
Net cash provided by financing activities	71,647,188	8,293,951
Effect of exchange rates on cash and cash equivalents	(9,129)	—
Net change in cash and cash equivalents	43,315,088	4,968,948
Cash and cash equivalents — beginning of period	37,327,125	15,042,189
Cash and cash equivalents — end of period	$ 80,642,213	$ 20,011,137
Supplemental Disclosure of Non-Cash Financing Activities:		
Change in net unrealized gain on available-for-sale securities	$ 59,612	$ —
Reclassification of realized gain on available-for-sale debt securities to earnings	$ 12,846	$ —

See accompanying notes to condensed consolidated financial statements.

Note 1. Management's Representation and Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared by Cryoport, Inc. (the "Company", "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 six months ended June 30, 2019 are not necessarily indicative of the results that may be expected for the year ending December 31, 2019. 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, 2018.

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, Inc. ("Cryoport") is the market-leading provider of temperature-controlled solutions to the life sciences industry through its purpose-built proprietary packaging, information technology, specialized cold chain logistics expertise, and biostorage services. The Company provides leading edge solutions to the biopharma, reproductive medicine and animal health markets to ship, store and deliver biologic materials, such as immunotherapies, stem cells, CAR-T cell therapies, vaccines and reproductive cells for clients worldwide Cryoport actively supports pharmaceutical and biotechnology companies, points-of-care, contract research organizations, central laboratories, contract manufacturers, university researchers and other entities service the life sciences industry.

On May 14, 2019, the Company acquired substantially all of the assets of Cryogene Partners, a Texas general partnership doing business as Cryogene Labs ("Cryogene"). Cyrogene operates a temperature-controlled biostorage solutions business in Houston, Texas (see Note 11). As a result of the Cryogene acquisition, the Company operates in two reportable segments: Global Logistics Solutions and Global Bioservices. See Note 7 for segment information.

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

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of Cryoport, Inc. and its wholly owned subsidiaries, Cryoport Systems, Inc., Cryoport Netherlands B.V., Cryoport UK Limited and Cryogene, Inc. (collectively, the "Company"). All intercompany accounts and transactions have been eliminated.

Cash and Cash Equivalents

Our cash and cash equivalents represent demand deposits, and money market funds which are readily convertible into cash, have maturities of 90 days or less when purchased and are considered highly liquid and easily tradeable.

Short-Term Investments

Our investments in equity securities consist of mutual funds with readily determinable fair values which are carried at fair value with changes in fair value recognized in earnings.

Investments in debt securities are classified as available-for-sale and are carried at fair value, with unrealized gains and losses, net of tax, reported as accumulated other comprehensive income (loss) and included as a separate component of stockholders' equity.

Gains and losses are recognized when realized. When we have determined that an other than temporary decline in fair value has occurred, the amount related to a credit loss is recognized in earnings. Gains and losses are determined using the specific identification method.

Short-term investments are classified as current assets even though maturities may extend beyond one year because they represent investments of cash available for operations.

Use of Estimates

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from estimated amounts. The Company's significant estimates include the allowance for doubtful accounts, fair value of short-term investments, fair value of assets acquired and liabilities assumed in business combinations, recoverability of goodwill and long-lived assets, allowance for inventory obsolescence, deferred taxes and their accompanying valuations, and valuation of equity-based instruments.

Fair Value of Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued expenses, finance lease liabilities and the convertible note. The carrying value for all such instruments, except finance lease liabilities and the convertible note, approximates fair value at June 30, 2019 and December 31, 2018 due to their short-term nature. The carrying value of finance lease liabilities approximates fair value because the interest rate approximates market rates available to us for similar obligations with the same maturities. The convertible note bears an interest rate that fluctuates with the changes in LIBOR and, because the variable interest rates approximate market borrowing rates available to us, we believe the carrying value of the convertible note approximates its fair value at June 30, 2019 and December 31, 2018.

Concentrations of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash, cash equivalents and short-term investments. From time to time, we maintain cash, cash equivalent and short-term investment balances in excess of amounts insured by the Federal Deposit Insurance Corporation ("FDIC") and the Securities Investor Protection Corporation ("SIPC"). Primarily all of our cash, cash equivalents and short-term investments at June 30, 2019 were in excess of amounts insured by the FDIC and SIPC. The Company performs ongoing evaluations of these institutions to limit its concentration risk exposure. We manage such risks in our portfolio by investing in highly liquid, highly-rated instruments, and limit investing in long-term maturity instruments.

Our investment policy requires that purchased instruments in marketable securities may only be in highly-rated instruments, which are primarily U.S. Treasury bills or treasury-backed securities, and also limits our investment in securities of any single issuer.

Customers

The Company grants credit to customers within the U.S. and to a limited number of 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. Reserves for uncollectible amounts are provided based on past experience and a specific analysis of the accounts, which management believes is sufficient. Accounts receivable at June 30, 2019 and December 31, 2018 are net of reserves for doubtful accounts of $140,000 and $100,000, respectively. Although the Company expects to collect amounts due, actual collections may differ from the estimated amounts. The Company maintains reserves for bad debt and such losses, in the aggregate, historically have not exceeded its estimates.

The Company's customers are in the biotechnology, 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. As of June 30, 2019, there were two customers that accounted for 28.1% and 26.3%, respectively, of net accounts receivable. As of December 31, 2018, there were two customers that accounted for 29.0% and 23.4%, respectively, of net accounts receivable. There were no other single customers that owed us more than 10% of net accounts receivable at June 30, 2019 and December 31, 2018.

The Company has revenue from foreign customers primarily in Europe, Japan, Canada, India and Australia. During the six months ended June 30, 2019 and 2018, the Company had revenues from foreign customers of approximately $1.4 million and $894,000, respectively, which constituted approximately 9.3% and 10.3%, respectively, of total revenues. There were two customers that accounted for 26.9% and 10.5% of revenues during the six months ended June 30, 2019, respectively. For the six months ended June 30, 2018, there was one customer that accounted for 15.1% of total revenues. No other single customer generated over 10% of revenues during the six months ended June 30, 2019 and 2018.

During the three months ended June 30, 2019 and 2018, the Company had revenues from foreign customers of approximately $928,100 million and $365,800, respectively, which constituted approximately 11.0% and 7.9%, respectively, of total revenues. There were two customers that accounted for 28.6% and 10.4% of revenues during the three months ended June 30, 2019, respectively. For the three months ended June 30, 2018, there was one customer that accounted for 21.0% of total revenues. No other single customer generated over 10% of revenues during the three months ended June 30, 2019 and 2018.

Inventories

The Company's inventories consist of packaging materials and accessories that are sold to customers. Inventories are stated at the lower of cost and net realizable value. Cost is determined using the standard cost method which approximates the first-in, first-to-expire method. Inventories are reviewed periodically for slow-moving or obsolete status. The Company writes down the carrying value of its inventories to reflect situations in which the cost of inventories is not expected to be recovered. Once established, write-downs of inventories are considered permanent adjustments to the cost basis of the obsolete or excess inventories. Raw materials and finished goods include material costs less reserves for obsolete or excess inventories. The Company evaluates the current level of inventories considering historical trends and other factors, such as selling prices and costs of completion, disposal and transportation, and based on the evaluation, records adjustments to reflect inventories at net realizable value. These adjustments are estimates, which could vary significantly from actual results if future economic conditions, customer demand, competition or other relevant factors differ from expectations. These estimates require us to make assessments about future demand for the Company's products in order to categorize the status of such inventories items as slow-moving, obsolete or in excess-of-need. These estimates are subject to the ongoing accuracy of the Company's forecasts of market conditions, industry trends, competition and other factors.

Property and Equipment

The Company provides engineered shipping packages ("Cryoport Express® Shippers") to its customers and charges a fee in exchange for the use of the Cryoport Express® Shipper. The Company's arrangements are similar to the accounting standard for leases since they convey the right to use the Cryoport Express® Shipper over a period of time. The Company retains the title to the Cryoport Express® Shippers and provides its customers the use of the Cryoport Express® Shipper for a specific shipping cycle. At the culmination of the customer's shipping cycle, the Cryoport Express® Shipper is returned to the Company. As a result, the Company classifies the Cryoport Express® Shippers as property and equipment for the per-use Cryoport Express® Shipper program.

Property and equipment are recorded at cost. Cryoport Express® Shippers, which include SmartPak II™ Condition Monitoring Systems and/or data loggers, which comprise 24% and 34% of the Company's net property and equipment balance at June 30, 2019 and December 31, 2018, respectively, are depreciated using the straight-line method over their estimated useful lives of three years. Mechanical and liquid nitrogen freezers acquired in the Cryogene acquisition comprise 27% of the Company's net property and equipment balance at June 30, 2019, and are depreciated using the straight-line method over their estimated useful lives of seven to twelve years. Equipment and furniture are depreciated using the straight-line method over their estimated useful lives (generally three to fifteen years) and leasehold improvements are amortized using the straight-line method over the estimated useful life of the asset or the lease term, whichever is shorter.

Betterments, renewals and extraordinary repairs that extend the lives of the assets are capitalized; other repairs and maintenance charges are expensed as incurred. The cost and related accumulated depreciation and amortization applicable to assets retired are removed from the accounts, and the gain or loss on disposition is recognized in the consolidated statements of operations.

Leases

The Company determines if an arrangement is a lease at inception. Operating lease right-of-use ("ROU") assets represent the Company's right to use an underlying asset during the lease term, and operating lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating leases are included in ROU assets, current operating lease liabilities, and long-term operating lease liabilities on our consolidated balance sheets. Finance leases are included in property and equipment, current finance lease liabilities, and long-term finance lease liabilities on our consolidated balance sheets.

Lease ROU assets and lease liabilities are initially recognized based on the present value of the future minimum lease payments over the lease term at commencement date calculated using our incremental borrowing rate applicable to the lease asset, unless the implicit rate is readily determinable. ROU assets also include any lease payments made at or before lease commencement and exclude any lease incentives received. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Leases with a term of 12 months or less are not recognized on the condensed consolidated balance sheet. The Company's leases do not contain any residual value guarantees. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term.

The Company accounts for lease and non-lease components as a single lease component for all its leases.

Goodwill

The Company evaluates goodwill on an annual basis in the fourth quarter or more frequently if management believes indicators of impairment exist. Such indicators could include, but are not limited to: (1) a significant adverse change in legal factors or in business climate, (2) unanticipated competition, or (3) an adverse action or assessment by a regulator. The Company first assesses qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill. If management concludes that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, management conducts a two-step quantitative goodwill impairment test. The first step of the impairment test involves comparing the fair value of the applicable reporting unit with its carrying value. If the carrying amount of a reporting unit exceeds the reporting unit's fair value, management performs the second step of the goodwill impairment test. The second step of the goodwill impairment test involves comparing the implied fair value of the affected reporting unit's goodwill with the carrying value of that goodwill. The amount, by which the carrying value of the goodwill exceeds its implied fair value, if any, is recognized as an impairment loss. No triggering events indicating goodwill impairment occurred during the six months ended June 30, 2019.

Intangible Assets

Intangible assets are comprised of patents, trademarks, software development costs and the intangible assets acquired in the Cryogene acquisition which include a non-compete agreement, technology, customer relationships and trade name/trademark. The Company capitalizes costs of obtaining patents and trademarks, which are amortized, using the straight-line method over their estimated useful life of five years once the patent or trademark has been issued. The Company capitalizes certain costs related to software developed for internal use. Software development costs incurred during the preliminary or maintenance project stages are expensed as incurred, while costs incurred during the application development stage are capitalized and amortized using the straight-line method over the estimated useful life of the software, which is five years. Capitalized costs include purchased materials and costs of services. The non-compete agreement, technology, customer relationships and Cryogene trade name/trademark acquired in the Cryogene acquisition are amortized using the straight-line method over the estimated useful lives (see Note 11).

The Company evaluates the recoverability of identifiable intangible assets whenever events or changes in circumstances indicate that an intangible asset's carrying amount may not be recoverable. Such circumstances could include, but are not limited to: (1) a significant decrease in the market value of an asset, (2) a significant adverse change in the extent or manner in which an asset is used, or (3) an accumulation of costs significantly in excess of the amount originally expected for the acquisition of an asset. The Company measures the carrying amount of the asset against the estimated undiscounted future cash flows associated with it. Should the sum of the expected future net cash flows be less than the carrying value of the asset being evaluated, an impairment loss would be recognized. The impairment loss would be calculated as the amount by which the carrying value of the asset exceeds its fair value. The estimate of fair value is based on various valuation techniques, including the discounted value of estimated future cash flows. The evaluation of asset impairment requires the Company to make assumptions about future cash flows over the life of the asset being evaluated. These assumptions require significant judgment and actual results may differ from assumed and estimated amounts. There was no impairment of intangible assets during the six months ended June 30, 2019.

Other Long-lived Assets

If indicators of impairment exist, we assess the recoverability of the affected long-lived assets by determining whether the carrying value of such assets can be recovered through undiscounted future operating cash flows. If impairment is indicated, we measure the amount of such impairment by comparing the fair value to the carrying value. We believe the future cash flows to be received from the long-lived assets will exceed the assets' carrying value, and accordingly, we have not recognized any impairment losses through June 30, 2019.

Deferred Financing Costs

Deferred financing costs represent costs incurred in connection with the issuance of debt instruments and equity financings. Deferred financing costs related to the issuance of debt are amortized over the term of the financing instrument using the effective interest method and are presented in the consolidated balance sheets as an offset against the related debt. Offering costs from equity financings are netted against the gross proceeds received from the equity financings.

Income Taxes

The Company accounts for income taxes under the provision of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 740, *Income Taxes*, or ASC 740. As of June 30, 2019 and December 31, 2018, there were no unrecognized tax benefits included in the accompanying condensed consolidated balance sheets that would, if recognized, affect the effective tax rates.

Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is provided for certain deferred tax assets if it is more likely than not that the Company will not realize tax assets through future operations. Based on the weight of available evidence, the Company's management has determined that it is more likely than not that the net deferred tax assets will not be realized. Therefore, the Company has recorded a full valuation allowance against the net deferred tax assets. The Company's income tax provision consists of state minimum taxes.

The Company's policy is to recognize interest and/or penalties related to income tax matters in income tax expense. The Company had no accrual for interest or penalties on its condensed consolidated balance sheets at June 30, 2019 and December 31, 2018 and has not recognized interest and/or penalties in the condensed consolidated statements of operations for the three and six months ended June 30, 2019 and 2018. The Company is subject to taxation in the U.S. and various state jurisdictions. As of June 30, 2019, the Company is no longer subject to U.S. federal examinations for years before 2015 and for California franchise and income tax examinations for years before 2014. However, to the extent allowed by law, the taxing authorities may have the right to examine prior periods where net operating losses were generated and carried forward and make adjustments up to the amount of the net operating loss carry forward amount. The Company is not currently under examination by U.S. federal or state jurisdictions.

Revenue Recognition

Revenues are recognized when control is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods and services. Revenue recognition is evaluated through the following five steps: (i) identification of the contract, or contracts, with a customer; (ii) identification of the performance obligations in the contract; (iii) determination of the transaction price; (iv) allocation of the transaction price to the performance obligations in the contract; and (v) recognition of revenue when or as a performance obligation is satisfied.

Performance Obligations

At contract inception, an assessment of the goods and services promised in the contracts with customers is performed and a performance obligation is identified for each distinct promise to transfer to the customer a good or service (or bundle of goods or services). To identify the performance obligations, the Company considers all of the goods or services promised in the contract regardless of whether they are explicitly stated or are implied by customary business practices. Revenue is recognized when our performance obligation has been met. The Company considers control to have transferred upon delivery because the Company has a present right to payment at that time, the Company has transferred use of the asset, and the customer is able to direct the use of, and obtain substantially all of the remaining benefits from, the asset.

For arrangements under which the Company provides biological specimen storage services and logistics support and management to the customer, the Company satisfies its performance obligations as those services are performed whereby the customer simultaneously receives and consumes the benefits of such services under the agreement.

Revenue generated from short-term logistics and engineering consulting services provided to customers is recognized when the Company satisfies the contractually defined performance obligations.

Our performance obligations on our orders and under the terms of agreements with customers are generally satisfied within one year from a given reporting date and, therefore, we omit disclosure of the transaction price allocated to remaining performance obligations on open orders.

Shipping and handling activities related to contracts with customers are accounted for as costs to fulfill our promise to transfer the associated products pursuant to the accounting policy election allowed under Topic 606 and are not considered a separate performance obligation to our customers. Accordingly, the Company records amounts billed for shipping and handling as a component of revenue. Shipping and handling fees and costs are included in cost of revenues in the accompanying condensed consolidated statements of operations.

Revenues are recognized net of any taxes collected from customers, which are subsequently remitted to governmental agencies.

Significant Payment Terms

Pursuant to the Company's contracts with its customers, amounts billed for services or products delivered by the Company are generally due and payable in full within 15 days from the date of the invoice (except for any amounts disputed by the customer in good faith). Accordingly, the Company determined that its contracts with customers do not include extended payment terms or a significant financing component.

Variable Consideration

In some cases, the nature of the Company's contracts may give rise to variable consideration, including discounts and allowances or other similar items that generally decrease the transaction price.

Variable consideration is estimated at the most likely amount that is expected to be earned. Estimated amounts are included in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. Estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based largely on an assessment of the anticipated performance and all information (historical, current and forecasted) that is reasonably available.

Revenues are recorded net of variable consideration, such as discounts and allowances.

Warranties

The Company's products and services are provided on an "as is" basis and no warranties are included in the contracts with customers. Also, the Company does not offer separately priced extended warranty or product maintenance contracts.

Incremental Direct Costs

The Company expenses incremental direct costs of obtaining a contract (sales commissions) when incurred because the amortization period is generally 12 months or less. The Company does not incur costs to fulfill a customer contract that meet the requirements for capitalization.

Contract Assets

Typically, we invoice the customer and recognize revenue once we have satisfied our performance obligation. Accordingly, our contract assets comprise accounts receivable, which are recognized when payment is unconditional and only the passage of time is required before payment is due. Generally, we do not have material amounts of other contract assets since revenue is recognized as control of goods is transferred or as services are performed.

Contract Liabilities (Deferred Revenue)

Contract liabilities are recorded when cash payments are received in advance of the Company's performance. Deferred revenue was $221,800 and $66,300 at June 30, 2019 and December 31, 2018, respectively. During the three months and six months ended June 30, 2019, the Company recognized revenues of $86,900 and $153,200, respectively, from the related contact liabilities outstanding as the services were performed.

Nature of Goods and Services

The Global Logistics Solutions segment provides Cryoport Express® Shippers to its customers and charges a fee in exchange for the use of the Cryoport Express® Shipper under long-term agreements with customers. The Company's arrangements convey to the customers the right to use the Cryoport Express® Shippers over a period of time. The Company retains title to the Cryoport Express® Shippers and provides its customers the use of the Cryoport Express® Shipper for a specified shipping cycle. At the culmination of the customer's shipping cycle, the Cryoport Express® Shipper is returned to the Company.

The Global Bioservices segment provides comprehensive and integrated temperature-controlled biostorage solutions to customers in the life sciences industry and charges a fee under long-term agreements with customers. These services include (1) biological specimen cryopreservation storage and maintenance, (2) archiving, monitoring, tracking, receipt and delivery of samples, (3) transport of frozen biological specimens to and from customer locations, and (4) management of incoming and outgoing biological specimens.

The vast majority of our revenues are covered under long-term agreements. We have determined that individual Statements of Work or Scope of Work ("SOW"), whose terms and conditions taken with a Master Services Agreement ("MSA"), create the Topic 606 contracts which are generally short-term in nature (e.g., 15-day shipping cycle) for the Global Logistics Solutions segment and up to 12 months for the Global Bioservices segment. Our agreements (including SOWs) generally do not have multiple performance obligations and, therefore, do not require an allocation of a single price amongst multiple goods or services. Prices under these agreements are generally fixed. The Global Logistics Solutions segment recognizes revenue for the use of the Cryoport Express® Shipper at the time of the delivery of the Cryoport Express® Shipper to the end user of the enclosed materials, and at the time that collectability is probable. The Global Bioservices segment recognizes revenue as services are rendered over time and at the time that collectability is probable.

The Company also provides logistics support and management to some customers, which may include onsite logistics personnel. Revenue is recognized for these services as services are rendered over time and at the time that collectability is probable.

The Company also provides short-term logistics and engineering consulting services to some customers, with fees tied to the completion of contractually defined services. We recognize revenue from these services over time as the customer simultaneously receives and consumes the benefit of these services as they are performed.

Revenue Disaggregation

The Company operates in two reportable segments and evaluates financial performance on a Company-wide basis. 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 source for the three and six months ended June 30, 2019 and 2018:

	Three Months Ended June 30,		Six Months Ended June 30,	
(000's omitted)	2019	2018	2019	2018
Global Logistics Solutions:				
Biopharmaceutical	$ 6,959	$ 3,849	$ 12,599	$ 7,131
Reproductive medicine	671	499	1,455	1,001
Animal health	257	279	486	518
Global Biostorage	577	—	577	—
Total revenues	$ 8,464	$ 4,627	$ 15,117	$ 8,650

Our geographical revenues, by origin, for the three and six months ended June 30, 2019 and 2018, were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
(000's omitted)	2019	2018	2019	2018
Americas	$ 7,536	$ 4,261	$ 13,705	$ 7,778
Europe, the Middle East and Africa (EMEA)	724	271	1,087	638
Asia Pacific (APAC)	204	95	325	234
Total revenues	$ 8,464	$ 4,627	$ 15,117	$ 8,650

Engineering and Development Expenses

Expenditures relating to engineering and development are expensed in the period incurred.

Stock-Based Compensation

The Company accounts for stock-based payments in accordance with stock-based payment accounting guidance which requires all stock-based payments to be recognized based upon their fair values. The fair value of stock-based awards is estimated at the grant date using the Black-Scholes Option Pricing Model ("Black-Scholes") and the portion that is ultimately expected to vest is recognized as compensation cost over the requisite service period. The determination of fair value using Black-Scholes is affected by the Company's stock price as well as assumptions regarding a number of complex and subjective variables, including expected stock price volatility, risk-free interest rate, expected dividends and projected employee stock option exercise behaviors. The Company accounts for forfeitures of unvested awards as they occur.

The Company's stock-based compensation plans are discussed further in Note 13.

Basic and Diluted Net Loss Per Share

We calculate basic and diluted net income (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, warrants and shares associated with the conversion of convertible debt outstanding during the periods.

The following shows the amounts used in computing net loss per share for the three and six months ended June 30:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	**2018**	**2019**	**2018**
Net loss	$ (2,528,491)	$ (2,470,890)	$ (4,915,393)	$ (5,153,650)
Weighted average common shares issued and outstanding - basic and diluted	31,176,166	27,808,873	30,811,109	27,294,384
Basic and diluted net loss per share	$ (0.08)	$ (0.09)	$ (0.16)	$ (0.19)

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 June 30,		Six Months Ended June 30,	
	2019	**2018**	**2019**	**2018**
Stock options	3,926,229	3,228,636	3,443,629	2,985,721
Warrants	1,058,049	1,543,052	996,702	1,460,316
Convertible note	1,372,998	—	1,372,998	—
	6,357,276	4,771,688	5,813,329	4,446,037

Foreign Currency Transactions

Management has determined that the functional currency of its subsidiaries is the local currency. Assets and liabilities of the Netherlands and UK 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 $(1,500) and $(11,600) for the three and six months ended June 30, 2019. Foreign currency gains and losses from transactions denominated in other than respective local currencies are included in earnings. Foreign currency gains and losses for all periods presented were not significant.

Balance Sheet Arrangements

We do not currently have any off balance sheet arrangements.

Reclassifications

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

Recently Adopted Accounting Pronouncements

In June 2018, the FASB issued ASU 2018-07, "Compensation – Stock Compensation: Improvements to Nonemployee Share-Based Payment Accounting" which simplifies several aspects of the accounting for nonemployee share-based payment transactions resulting from expanding the scope of Topic 718, "Compensation-Stock Compensation", to include share-based payment transactions for acquiring goods and services from nonemployees. Some of the areas for simplification apply only to nonpublic entities. The amendments specify that Topic 718 applies to all share-based payment transactions in which a grantor acquires goods or services to be used or consumed in a grantor's own operations by issuing share-based payment awards. The amendments also clarify that Topic 718 does not apply to share-based payments used to effectively provide (1) financing to the issuer or (2) awards granted in conjunction with selling goods or services to customers as part of a contract accounted for under Topic 606, "Revenue from Contracts with Customers". The Company adopted ASU 2018-07 effective January 1, 2019, and the adoption of the standard did not have an impact on the Company's condensed consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, "Leases", as amended by ASU No. 2018-11, "Leases: Targeted Improvements", (ASC 842), which provides for a comprehensive change to lease accounting. The new guidance amends the existing accounting standards for leases to increase transparency and comparability among organizations by requiring the recognition of ROU assets and lease liabilities on the balance sheet. Most prominent among the changes in the standard is the recognition of ROU assets and lease liabilities by lessees for those leases classified as operating leases. Under the standard, disclosures are required to meet the objective of enabling users of financial statements to assess the amount, timing, and uncertainty of cash flows arising from leases.

We adopted the standard effective January 1, 2019 using the modified retrospective approach with the effective date as the date of initial application. Consequently, prior period balances and disclosures have not been restated. Also, the Company has implemented additional internal controls to enable future preparation of financial information in accordance with ASC 842.

The standard had a material impact on our condensed consolidated balance sheets, which resulted in the recognition of ROU assets of $1.8 million, lease liabilities of $2.1 million and a reduction in deferred rent liabilities of $308,600 for operating leases, while our accounting for finance leases remained substantially unchanged. However, the adoption of the new standard did not materially impact our consolidated results of operations and cash flows. Also, the adoption of ASC 842 did not have an impact on the Company's beginning accumulated deficit balance.

ASC 842 provides a number of optional practical expedients in transition. For leases that commenced prior to January 1, 2019, the Company elected: (1) the "package of practical expedients", which permits it not to reassess under the new standard its prior conclusions about lease identification, lease classification, and initial direct costs, and (2) the use-of-hindsight in determining the lease term and in assessing impairment of ROU assets. In addition, ASC 842 provides practical expedients for an entity's ongoing accounting that the Company has elected, comprised of the following: (1) the election for classes of underlying asset to not separate non-lease components from lease components, and (2) the election for short-term lease recognition exemption for all leases that qualify.

For additional information regarding the Company's leases, see Note 10.

Accounting Guidance Issued but Not Adopted at June 30, 2019

In August 2018, the FASB issued ASU 2018-13, "Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement," which is part of the FASB disclosure framework project to improve the effectiveness of disclosures in the notes to the financial statements. The amendments in the new guidance remove, modify, and add certain disclosure requirements related to fair value measurements covered in Topic 820, "Fair Value Measurement." The new standard is effective for fiscal years beginning after December 15, 2019. Early adoption is permitted for either the entire standard or only the requirements that modify or eliminate the disclosure requirements, with certain requirements applied prospectively, and all other requirements applied retrospectively to all periods presented. We are currently evaluating the impact of adopting this guidance.

In January 2017, the FASB issued ASU 2017-04, "Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment", which is intended to simplify the subsequent accounting for goodwill acquired in a business combination. Prior guidance required utilizing a two-step process to review goodwill for impairment. A second step was required if there was an indication that an impairment may exist, and the second step required calculating the potential impairment by comparing the implied fair value of the reporting unit's goodwill (as if purchase accounting were performed on the testing date) with the carrying amount of the goodwill. The new guidance eliminates the second step from the goodwill impairment test. Under the new guidance, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount, and then recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value (although the loss should not exceed the total amount of goodwill allocated to the reporting unit). The guidance requires prospective adoption and will be effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019. We are currently evaluating the impact of adopting this guidance.

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 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. In addition, new disclosures are required. The ASU is effective for fiscal years beginning after December 15, 2019. We are currently evaluating the impact of adopting this guidance.

Note 4. Cash, Cash Equivalents and Short-Term Investments

Cash, cash equivalents and short-term investments consisted of the following as of June 30, 2019 and December 31, 2018:

	June 30, 2019	December 31, 2018
Cash	$ 79,472,844	$ 37,223,698
Cash equivalents:		
Money market mutual fund	1,169,369	103,427
Total cash and cash equivalents	80,642,213	37,327,125
Short-term investments:		
U.S. Treasury notes and bills	9,996,693	7,925,975
Mutual funds	4,106,960	2,004,993
Total short-term investments	14,103,653	9,930,968
Cash, cash equivalents and short-term investments	$ 94,745,866	$ 47,258,093

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 June 30, 2019 were as follows:

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
U.S. Treasury bills	$ 978,688	$ 19,517	$ —	$ 998,205
U.S. Treasury notes	8,947,658	50,830	—	8,998,488
Total available-for-sale investments	$ 9,926,346	$ 70,347	$ —	$ 9,996,693

The amortized cost, gross unrealized gains, gross unrealized losses and fair value of available-for-sale investments by type of security at December 31, 2018 were as follows:

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
U.S. Treasury bills	$ 2,948,777	$ 19,523	$ —	$ 2,968,300
U.S. Treasury notes	4,953,616	4,059	—	4,957,675
Total available-for-sale investments	$ 7,902,393	$ 23,582	$ —	$ 7,925,975

The following table summarizes the fair value of available-for-sale investments based on stated contractual maturities as of June 30, 2019:

	Amortized Cost	Fair Value
Due within one year	$ 9,926,346	$ 9,996,693

As of June 30, 2019 and December 31, 2018, there were no available-for-sale investments in an unrealized loss position.

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.

During the six months ended June 30, 2019, we had realized gains of $29,900 on available-for-sale investments.

Equity Investments

We held investments in equity securities with readily determinable fair values of $4.1 million at June 30, 2019. These investments consist of mutual funds that invest primarily in tax-free municipal bonds and treasury inflation protected securities.

Unrealized gains (losses) during 2019 related to equity securities held at June 30, 2019 are as follows:

Net gains recognized during the six months on equity securities	$	75,348
Less: net gains (losses) recognized on equity securities sold during the six months		—
Unrealized gains recognized during the six months on equity securities still held at June 30, 2019	$	75,348

Note 5. 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 June 30, 2019 and December 31, 2018 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:

	Fair Value Measurements			
	Level 1	Level 2	Level 3	Total
June 30, 2019				
Cash equivalents:				
Money market mutual fund	$ 1,169,369	$ —	$ —	$ 1,169,369
Marketable equity securities:				
Mutual funds	4,106,960	—	—	4,106,960
Available-for-sale debt securities:				
U.S. Treasury bills	998,205	—	—	998,205
U.S. Treasury notes	8,998,488	—	—	8,998,488
	$ 15,273,022	$ —	$ —	$ 15,273,022

	Fair Value Measurements			
	Level 1	Level 2	Level 3	Total
December 31, 2018				
Cash equivalents:				
Money market mutual fund	$ 103,427	$ —	$ —	$ 103,427
Marketable equity securities:				
Mutual funds	2,004,993	—	—	2,004,993
Available-for-sale debt securities:				
U.S. Treasury notes	4,957,675	—	—	4,957,675
U.S. Treasury bills	2,968,300	—	—	2,968,300
	$ 10,034,395	$ —	$ —	$ 10,034,395

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 I within the fair value hierarchy.

We did not have any financial liabilities measured at fair value on a recurring basis as of June 30, 2019.

Note 6. Convertible Note

On December 14, 2018, we entered into a Securities Purchase and Registration Rights Agreement (the "SPA") with Petrichor Opportunities Fund I LP (the "Investor") in connection with (i) the issuance and sale of 1,000,000 shares of the Company's common stock, par value $0.001 per share (the "Investment Shares"), at a price equal to $10.00 per share and (ii) the issuance of a $15,000,000 floating rate convertible note (the "Note") of the Company, with such Note convertible on the terms stated therein into shares of Common Stock (the "Note Shares") (together, the "Transaction"). In connection with the Transaction, the Company paid Petrichor Opportunities Fund I LP a commitment fee of $250,000 on the aggregate total purchase price for the Transaction.

The Note is the senior unsecured obligation of the Company. Unless earlier converted or redeemed, the Note will mature on December 14, 2023. The Note accrues interest at a rate equal to the greater of (a) three-month London Interbank Offered Rate (LIBOR) or (b) two percent, plus the applicable margin of six percent on the outstanding balance of the Note, payable quarterly on the first business day of each calendar quarter.

Prior to the maturity, a holder of the Note will have the right to convert all or any portion of the Note, including any accrued but unpaid interest, into shares of Common Stock at a conversion price of $13.11 per share (the "Conversion Price"), subject to certain adjustments as set forth in the Note. The Company determined that the Note's conversion option includes a down round price protection feature which triggers upon the occurrence of a future event. As a result, the Company will account for the conversion option in accordance with ASU 2017-11 and related accounting guidance, which requires the Company to recognize a contingent beneficial conversion feature in earnings at such time the conversion price is adjusted. If, at any time on or prior to December 14, 2021, the volume-weighted average price of the Common Stock exceeds $17.48 for 15 consecutive trading days and certain additional conditions are satisfied, the Note will automatically convert into shares of Common Stock at the Conversion Price, subject to certain conditions.

At any time after June 14, 2019, the Company has the right to redeem all, but not less than all, of the outstanding Note for cash prior to the Maturity Date, at a redemption premium on such amount as follows: (a) prior to December 14, 2019, 112%; (b) after December 14, 2019 but on or prior to December 14, 2020, 109%; and (c) after December 14, 2020, 106% (the "Redemption Premium").

Upon the occurrence of certain events of default as set forth in the Note (other than events of default relating to bankruptcy, insolvency, reorganization or liquidation proceedings) or a change of control, a holder of the Note may require the Company to redeem all or any portion of its Note at the applicable Redemption Premium. If certain events of default relating to bankruptcy, insolvency, reorganization or liquidation proceedings occur, all outstanding principal and accrued and unpaid interest (plus any accrued and unpaid late charges) will automatically become due and payable at the applicable Redemption Premium.

The Note contains certain covenants and restrictions, including, among others, that, for so long as the Note is outstanding, the Company will not incur any indebtedness (other than permitted indebtedness under the Note), permit liens on its properties (other that permitted liens under the Note), make payments on junior securities, make dividends or transfer certain assets or permit its unrestricted cash to be less than a minimum amount.

Pursuant to the SPA, the Company agreed to register the Investment Shares and the Note Shares by filing a registration statement with the SEC by the 45th calendar day after the closing date of the Transaction. The registration statement was filed on January 28, 2019 and was declared effective by the SEC on February 14, 2019.

The issuance costs for this Transaction, including the commitment fee paid to the Investor totaled approximately $480,000. As these costs were incurred to raise both debt and equity, the total costs have been allocated on a pro-rata basis to the debt and equity financings based on their relative fair values. The pro-rata portion of these fees related to the Note will be amortized over the five-year stated life of the Note. During the three and six months ended June 30, 2019, the Company amortized $15,400 and $30,800, respectively, of the debt discount to interest expense for the Note.

On July 9, 2019, the Company entered into Amendment No. 1 to the Note. Pursuant to the amendment, the terms of the Note were amended such that (i) after June 30, 2019, the interest rate on the Note is reduced to 6.00%; (ii) after June 30, 2019, accrued interest on the Note will be converted into common stock of the Company in connection with any conversion of the Note, provided that solely with respect to such accrued but unpaid interest, the conversion price will be an amount equal to the average volume-weighted average price of the Company's common stock for the 15 consecutive trading days prior to the conversion date; (iii) the mandatory conversion date is December 14, 2019; (iv) the maximum percentage provisions relating to a mandatory conversion of the Note were removed; (v) the Note is no longer required to be senior to any other indebtedness of the Company and its subsidiaries; and (vi) the limitation on the Company and its subsidiaries from incurring indebtedness was removed. Since the Note is convertible into shares of the Company's common stock on December 14, 2019, the Company determined that the classification as a long-term liability is appropriate as the debt will not be settled in cash.

Interest expense was $315,800 and $638,300 for the three and six months ended June 30, 2019, respectively, of which $315,800 is included in accounts payable and other accrued expenses in the accompanying condensed consolidated balance sheet as of June 30, 2019.

Note 7. Segment Reporting

We currently operate in two reportable segments: Global Logistics Solutions and Global Bioservices. The Global Logistics Solutions segment provides temperature-controlled logistics solutions to the life sciences industry through its purpose-built proprietary packaging, information technology and specialized cold chain logistics expertise. The Company provides leading edge logistics solutions to the biopharma, reproductive medicine and animal health markets to ship, store and deliver biologic materials, such as immunotherapies, stem cells, CAR-T cell therapies, vaccines and reproductive cells for clients worldwide. The Global Bioservices segment provides a comprehensive temperature-controlled sample management solution to the life science industry, including specimen storage, sample processing, collection, and retrieval. The spectrum of temperature-controlled solutions provided by the Company ranges from ambient, or controlled room temperature (20°C to 25°C), refrigerated (2°C to 8°C), to frozen and cryogenic (below 0°C to as low as −150°C). Our Chief Executive Officer is the chief operating decision maker for both segments.

The Company derives the results of the segments directly from its internal management reporting system. The accounting policies of the operating segments are substantially the same as those described in the summary of significant accounting policies. The Company evaluates segment performance on the basis of revenues and profit or loss. Management uses these operating results, in part, to evaluate the performance of, and to allocate resources to, each of the segments.

The Company's reportable segments are strategic business units that offer different products and services. They are managed separately because each business requires different sales and marketing strategies and operational skillsets. The Global Bioservices segment is currently comprised of the Cryogene business that was acquired in May 2019 (see Note 11), and the management at the time of the acquisition was retained. Prior to this acquisition, the Company had a single reportable segment: Global Logistics Solutions.

Reportable segment information is presented in the following tables:

	Three Months Ended June 30, 2019		
	Global Logistics Solutions	Global Bioservices	Total
Revenues	$ 7,887,044	$ 576,544	$ 8,463,588
Interest expense	(333,910)	—	(333,910)
Depreciation and amortization expense	(367,246)	(129,444)	(496,690)
Segment net income (loss)	(2,687,228)	158,737	(2,528,491)
Other significant items:			
Segment assets	108,798,388	24,347,707	133,146,095
Goodwill	—	11,149,663	11,149,663
Expenditures for long-lived assets	(1,327,407)	(152,254)	(1,479,661)

	Six Months Ended June 30, 2019		
	Global Logistics Solutions	Global Bioservices	Total
Revenues	$ 14,539,956	$ 576,544	$ 15,116,500
Interest expense	(672,638)	—	(672,638)
Depreciation and amortization expense	(667,811)	(129,444)	(797,255)
Segment net income (loss)	(5,074,130)	158,737	(4,915,393)
Other significant items:			
Segment assets	108,798,388	24,347,707	133,146,095
Goodwill	—	11,149,663	11,149,663
Expenditures for long-lived assets	(2,468,920)	(152,254)	(2,621,174)

Revenues from one customer of the Company's Global Bioservices segment represents approximately 83.3% of that segment's net revenues but it does not exceed 10% of the Company's consolidated net revenues for the three and six months ended June 30, 2019.

Note 8. Goodwill and Other Intangible Assets

Goodwill

During the three months ended June 30, 2019, the Company recorded $11.1 million of goodwill which is related to the acquisition of Cryogene. See Note 11 for further information on this acquisition transaction. As of June 30, 2019, the carrying value of goodwill is $11.1 million which is allocated to the Global Bioservices reportable segment.

Other Intangible Assets

The following table presents our other intangible assets as of June 30, 2019:

	Gross Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Amortization Period (years)
Non-compete agreement	$ 390,000	$ 6,500	$ 383,500	5
Technology	510,000	8,500	501,500	5
Customer relationships	3,900,000	27,083	3,872,917	12
Cryogene trade name/trademark	480,000	2,667	477,333	15
Cryoport patents and trademarks	227,624	47,375	180,249	—
Total	$ 5,507,624	$ 92,125	$ 5,415,499	

The following table presents our other intangible assets as of December 31, 2018:

	Gross Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Amortization Period (years)
Cryoport patents and trademarks	$ 184,595	$ 47,375	$ 137,220	—

Amortization expense for intangible assets for the three and six months ended June 30, 2019 was $44,800.

Expected future amortization of intangible assets as of June 30, 2019 is as follows:

Years Ending December 31,	Amount
Remainder of 2019	$ 268,500
2020	537,000
2021	537,000
2022	537,000
2023	537,000
Thereafter	2,998,999
	$ 5,415,499

Note 9. Commitments and Contingencies

Facility and Equipment Leases

We lease 27,600 square feet of corporate, research and development, and logistics facilities in Irvine, California under an operating lease expiring February 2023, subject to our option to extend the lease for two additional five-year periods. The initial base rent is approximately $24,700 per month. We also lease 8,100 square feet of logistics facilities in Livingston, New Jersey under an operating lease expiring December 2024, subject to our option to extend the lease for an additional five-year period. The initial base rent is approximately $7,600 per month. In addition, we lease 7,600 square feet of logistics facilities in Hoofddorp, The Netherlands under an operating lease expiring May 2023, subject to our option to extend the lease for two additional five-year periods. The initial base rent is approximately $5,400 per month. We also lease a total of 21,476 square feet of corporate and logistics facilities in Houston, Texas in two adjacent buildings under operating leases expiring in January 2024. The aggregate initial base rent is approximately $22,000 per month. These lease agreements contain certain scheduled annual rent increases which are accounted for on a straight-line basis. In addition, we lease certain equipment which expires through January 2024.

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. In the opinion of management, there are no legal matters involving the Company that would have a material adverse effect upon the Company's consolidated financial condition or results of operations.

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 10. Leases

The Company has operating and finance leases for corporate offices and certain equipment. These leases have remaining lease terms of two years to approximately six years, some of which include options to extend the leases for multiple renewal periods of five years each. As of June 30, 2019 and December 31, 2018, assets recorded under finance leases were $71,000, and accumulated depreciation associated with finance leases was $17,100 and $6,800, respectively.

The components of lease cost were as follows:

	Six Months Ended June 30, 2019
Operating lease cost	$ 279,500
Finance lease cost:	
Amortization of right-of-use assets	$ 5,074
Interest on finance lease liabilities	1,544
	6,618
Total lease cost	$ 286,118

Other information related to leases was as follows:

Supplemental Cash Flows Information	Six Months Ended June 30, 2019
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	$ 269,107
Operating cash flows from finance leases	$ 1,544
Financing cash flows from finance leases	$ 11,426
Right-of-use assets obtained in exchange for lease obligations:	
Operating leases	$ 2,544,000
Finance leases	$ —
Weighted-Average Remaining Lease Term	
Operating leases	7.4 years
Finance leases	1.8 years
Weighted-Average Discount Rate	
Operating leases	7.4%
Finance leases	6.0%

Future minimum lease payments under non-cancellable leases as of June 30, 2019 were as follows:

Years Ending December 31,	Operating Leases	Finance Leases
2019 (excluding the six months ended June 30, 2019)	$ 421,422	$ 12,970
2020	856,023	25,940
2021	858,657	8,647
2022	864,364	—
2023	528,889	—
Thereafter	2,355,538	—
Total future minimum lease payments	5,884,893	47,557
Less imputed interest	(1,429,568)	(2,636)
Total	$ 4,455,325	$ 44,921

Reported as of June 30, 2019	Operating Leases	Finance Leases
Current operating lease liabilities	$ 534,586	$ 25,940
Noncurrent operating lease liabilities	3,920,739	18,981
Total	$ 4,455,325	$ 44,921

Disclosures related to periods prior to adoption of ASC 842

The future minimum obligations under operating and capital leases in effect as of December 31, 2018 having a noncancelable term in excess of one year as determined prior to the adoption of ASC 842 are as follows:

Years Ending December 31,	Operating Leases	Capital Leases
2019	$ 525,592	$ 25,940
2020	537,742	25,940
2021	538,893	8,647
2022	542,790	—
2023	198,219	—
Thereafter	109,773	—
Total minimum lease payments	$ 2,453,009	60,527
Amount representing interest at 6%		(4,180)
Present value of future minimum capital lease obligations		56,347
Current portion		(23,191)
		$ 33,156

Note 11. Acquisition of Cryogene Partners

On May 14, 2019, Cryogene, Inc., a Texas corporation ("Buyer") and a wholly owned subsidiary of the Company entered into an Asset Purchase Agreement (the "Asset Purchase Agreement") for the acquisition of the assets of Cryogene Partners, a Texas general partnership doing business as Cryogene Labs ("Cryogene"). The closing of the transaction contemplated in the Asset Purchase Agreement occurred simultaneously with the execution of the Asset Purchase Agreement on May 14, 2019.

Pursuant to the terms and subject to the conditions of the Asset Purchase Agreement, the Company acquired substantially all of the assets of Cryogene, including, without limitation, tangible personal property, intellectual property assets, and certain contracts related to Cryogene's temperature-controlled biostorage solutions business located in Houston, Texas (the foregoing, the "Purchased Assets"), and assumed certain related liabilities.

The aggregate purchase price for the Purchased Assets was $20.5 million in cash, subject to adjustment as described in the Asset Purchase Agreement (the "Total Consideration"), $1 million of which was deposited into an escrow account to serve as an escrow fund for any indemnifiable losses of the Company under the Asset Purchase Agreement.

As a result of this acquisition, the Company is expected to extend its integrated logistics solutions and services to provide comprehensive temperature-controlled sample management solutions to the life sciences industry, including specimen storage, sample processing, collection, and retrieval.

Preliminary Purchase Price Allocation

We funded this acquisition through available cash and accounted for it as an acquisition of a business in accordance with FASB ASC Topic 805, "Business Combinations". Assets acquired and liabilities assumed in connection with the acquisition have been recorded at their fair values. Fair values were determined by management based in part on an independent valuation performed by a third-party valuation specialist. The Company has performed a preliminary valuation analysis of the fair value of Cyrogene's assets and liabilities. The following table summarizes the allocation of the purchase price as of the acquisition date:

Total purchase price	$ 20,429,651
Purchase price allocation:	
Property and equipment, net	4,257,340
Intangible assets	5,280,000
Deferred revenue	(220,291)
Other liabilities	(37,061)
Goodwill	11,149,663
	$ 20,429,651

The following table summarizes the preliminary fair value of intangible assets acquired at the date of acquisition and their estimated useful lives and amortization expense based on their respective useful lives:

	Estimated Fair Value	Estimated Useful Life	Amortization Method	Annual Amortization Expense
Non-compete agreement	$ 390,000	5	Straight-line	$ 78,000
Technology	510,000	5	Straight-line	102,000
Customer relationships	3,900,000	12	Straight-line	325,000
Trade name/trademark	480,000	15	Straight-line	32,000
Total	$ 5,280,000			$ 537,000

Goodwill is calculated as the excess of the purchase price over the fair value of net assets acquired and represents the future economic benefits arising from other assets acquired that could not be individually identified and separately recognized. Among the factors that contributed to a purchase price in excess of the fair value of the net tangible and intangible assets acquired were the acquisition of an assembled workforce, the expected synergies, and other benefits that we believe will result from combining the operations of Cryogene with our operations. Goodwill of approximately $11,150,000 related to the acquisition has been recorded in the Global Bioservices reportable segment. The goodwill recognized is expected to be deductible for income tax purposes.

Our estimate of the fair value of the specifically identifiable assets acquired and liabilities assumed as of the date of acquisition is subject to the finalization of management's analysis related to certain matters, including receipt of the final valuations and settlement of the escrow funds. The final determination of these fair values will be completed as additional information becomes available but no later than one year from the acquisition date. Although the final determination may result in asset and liability fair values that are different than the preliminary estimates of these amounts included herein, it is not expected that those differences will be material to our consolidated financial position.

Acquisition-related transaction costs (included in general and administrative expenses) totaled approximately $266,400.

The operating results of the Cryogene acquisition have been included in our unaudited condensed consolidated financial statements from the acquisition date through June 30, 2019. Our results for the six months ended June 30, 2019, include Cryogene sales of $576,500 and net income of $158,700.

The following unaudited pro forma information presents our combined results as if the Cryogene acquisition had occurred on January 1, 2018. The unaudited pro forma financial information was prepared to give effect to events that are (1) directly attributable to the acquisition, (2) factually supportable, and (3) expected to have a continuing impact on the combined company's results. There were no transactions between the Company and Cryogene during the periods presented that are required to be eliminated. The unaudited pro forma condensed combined financial information does not reflect any cost savings, operating synergies, or revenue enhancements that the combined companies may achieve as a result of the acquisition or the costs to integrate the operations or the costs necessary to achieve cost savings, operating synergies, or revenue enhancements.

The following table presents the unaudited, pro forma consolidated results of operations for the three and six months ended June 30, 2018 as if the acquisition of the assets of Cryogene had occurred as of January 1, 2018. The pro forma information provided below is compiled from the financial statements of Cryogene Partners, which includes pro forma adjustments for intangible assets amortization expense and transaction costs.

	Three Months Ended June 30, 2018	Six Months Ended June 30, 2018
Revenues	$ 5,565,500	$ 10,534,200
Net loss	$ (2,684,100)	$ (5,252,800)
Basic and diluted earnings per share	$ (0.10)	$ (0.19)

The pro forma results are not necessarily indicative of the consolidated results of operations that we would have reported had the acquisition been completed as of January 1, 2018 and should not be taken as representative of our condensed consolidated results of operations following the acquisition. In addition, the unaudited proforma consolidated financial information is not intended to project the future results of operations of the Company.

Note 12. 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 and 585,000 shares have been designated as Class B Convertible Preferred Stock.

Common Stock Issued for Services

During the six months ended June 30, 2019, 3,239 shares of common stock with a fair value of $49,666 were issued to three members of the board of directors as compensation for services.

During the six months ended June 30, 2018, 3,095 shares of common stock with a fair value of $35,000 were issued to two members of the board of directors as compensation for services.

Common Stock Reserved for Future Issuance

As of June 30, 2019, approximately 8.2 million shares of common stock were issuable upon conversion or exercise of rights granted under prior financing arrangements, stock options and warrants, as follows:

Exercise of stock options	6,772,625
Exercise of warrants	1,392,146
Total shares of common stock reserved for future issuances	8,164,771

In addition, we reserved 1,372,998 shares of common stock issuable upon conversion of our Note, which reflects 120% of the maximum number of Note Shares issuable upon conversion of the Note (see Note 6).

June 2019 Public Offering

On June 24, 2019, the Company completed an underwritten public offering (the "Offering") of 4,312,500 shares of its common stock, par value $0.001 per share (the "Shares"). The Shares were issued and sold pursuant to an underwriting agreement (the "Underwriting Agreement"), dated June 19, 2019, by and among the Company, on the one hand, and Jefferies LLC and SVB Leerink LLC, as representatives of certain underwriters (collectively, the "Underwriters") at a public offering price per share of $17.00. The Shares include 562,500 shares issued and sold pursuant to the Underwriters' exercise in full of their option to purchase additional shares of common stock pursuant to the Underwriting Agreement. The Company received net proceeds of approximately $68.8 million from the Offering after deducting underwriting discounts and commissions and estimated offering expenses payable by the Company.

Certain of the Underwriters and their affiliates have provided in the past to the Company and its affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for the Company and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions.

The Offering was made pursuant to the Company's effective registration statement on Form S-3 previously filed with the Securities and Exchange Commission and a prospectus supplement.

February 2018 Tender Offer

On February 8, 2018, we completed an exchange offer with respect to the Company's outstanding warrants to purchase one share of common stock at an exercise price of $3.57 per share (the "Original Warrants"). Through February 2, 2018, we offered holders of the Original Warrants the opportunity to exchange such Original Warrants for an equal number of warrants to purchase one share of common stock at an exercise price of $3.00 per share (the "New Warrants"), conditioned upon the immediate exercise of such New Warrants.

Pursuant to the February 2018 Tender Offer, warrants to purchase 1,580,388 shares of the Company's common stock were tendered by holders of warrants and were amended and exercised in connection therewith, resulting in the issuance by the Company of an aggregate of 1,580,388 shares of its common stock for aggregate gross proceeds of $4.7 million.

The Original Warrants were issued (i) in July 2015 in connection with the Company's registered public offering of 2,090,750 units (each unit consisting of one share of the Company's common stock and one Original Warrant), and (ii) in January 2016 in connection with the mandatory exchange of all of the Company's outstanding Class A Convertible Preferred Stock and Class B Convertible Preferred Stock into 4,977,038 units (each unit consisting of one share of the Company's common stock and one Original Warrant).

The terms of the New Warrants included (i) an exercise price of $3.00 per share and (ii) an exercise period that expired concurrently with the expiration of the Offer at 5:00 p.m. (Eastern Time) on February 2, 2018 (the "Expiration Date"). In addition, the shares issuable upon exercise of the New Warrants (the "New Warrant Shares") were subject to a 60-day lock-up period.

The purpose of the Offer was to raise funds to support the Company's growth plans by providing the holders of the Original Warrants an incentive to exchange their Original Warrants for New Warrants and exercise the New Warrants to purchase shares of the Company's common stock at a reduced exercise price as compared to the Original Warrants. The Company received all of the proceeds from the immediate exercise of the New Warrants, which will be used by the Company for business growth, including as working capital and for other general corporate purposes.

As a result of reducing the exercise price of certain warrants in connection with the February 2018 Tender Offer, a warrant repricing expense of $899,400 was incurred which was determined using the Black-Scholes option pricing model and was calculated as the difference between the fair value of the warrants prior to, and immediately after, the reduction in the exercise price on the date of repricing. Such amount is included in warrant inducement and repricing expense in the condensed consolidated statement of operations for the six months ended June 30, 2018. In connection with this offering, the Company incurred $99,400 in offering costs that were offset against the proceeds from this offering.

Note 13. Stock-Based Compensation

Warrant Activity

We typically issue warrants to purchase shares of our common stock to investors as part of a financing transaction or in connection with services rendered by placement agents and consultants. Our outstanding warrants expire on varying dates through November 2021. A summary of warrant 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, 2018	2,049,534	$ 4.03		
Issued	—	—		
Exercised	(636,478)	4.08		
Expired	(20,910)	17.68		
Outstanding — June 30, 2019	1,392,146	$ 3.81	1.1	$ 20,202,100
Vested (exercisable) — June 30, 2019	1,392,146	$ 3.81	1.1	$ 20,202,100

(1) Aggregate intrinsic value represents the difference between the exercise price of the warrant and the closing market price of our common stock on June 28, 2019, which was $18.32 per share.

Total intrinsic value of warrants exercised during the three months ended June 30, 2019 was $6.6 million.

Stock Options

We have five stock incentive plans: the 2002 Stock Incentive Plan (the "2002 Plan"), the 2009 Stock Incentive Plan (the "2009 Plan"), the 2011 Stock Incentive Plan (the "2011 Plan"), the 2015 Omnibus Equity Incentive Plan (the "2015 Plan"), and the 2018 Omnibus Equity Incentive Plan (the "2018 Plan"), (collectively, the "Plans"). The 2002 Plan, the 2009 Plan, the 2011 Plan and the 2015 Plan (the "Prior Plans") have been superseded by the 2018 Plan. In May 2018, the stockholders approved the 2018 Plan for issuance up to 3,730,179 shares. The Prior Plans will remain in effect until all awards granted under such Prior Plans have been exercised, forfeited, cancelled, or have otherwise expired or terminated in accordance with the terms of such awards, but no awards will be made pursuant to the Prior Plans after the effectiveness of the 2018 Plan. As of June 30, 2019, the Company had 2,859,532 shares available for future awards under the 2018 Plan.

During the six months ended June 30, 2019, we granted stock options at exercise prices equal to or greater 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:

Expected life (years)	5.2 – 6.2
Risk-free interest rate	1.8% – 2.6%
Volatility	75% – 99%
Dividend yield	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. In April 2019, the Company amended its expected volatility assumption from using exclusively a historical volatility. The Company calculates its expected volatility assumption based on a blended volatility using an average of its historical and implied volatilities over the expected life of the stock-based award. The selection of the blended volatility assumption was based upon the Company's assessment that blended volatility is more representative of the Company's future stock price trends as it weighed in the longer term historical volatility with the near-term future implied volatility. We do not anticipate paying dividends on the common stock in the foreseeable future.

We recognize stock-based compensation expense over the vesting period using the straight-line single option method. Stock-based compensation expense is recognized only for those awards that vest. We account for the forfeitures of unvested awards as they occur.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Cost of revenues	$ 101,999	$ 57,947	$ 164,752	$ 93,404
General and administrative	1,343,984	1,007,090	2,284,123	1,734,813
Sales and marketing	443,253	303,766	782,328	533,331
Engineering and development	102,519	76,926	174,287	133,691
	$ 1,991,755	$ 1,442,729	$ 3,405,490	$ 2,495,239

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, 2018	5,757,305	$ 5.16		
Granted (weighted-average fair value of $8.86 per share)	1,333,850	12.96		
Exercised	(245,802)	3.52		
Forfeited	(72,728)	10.61		
Outstanding — June 30, 2019	6,772,625	$ 6.70	7.3	$ 78,736,800
Vested (exercisable) — June 30, 2019	4,239,076	$ 4.85	6.2	$ 57,095,400
Expected to vest after June 30, 2019 (unexercisable)	2,533,549	$ 9.78	9.0	$ 21,641,400

(1) Aggregate intrinsic value represents the difference between the exercise price of the option and the closing market price of our common stock on June 28, 2019, which was $18.32 per share.

Total intrinsic value of options exercised during the three months ended June 30, 2019 was $2.6 million.

As of June 30, 2019, there was unrecognized compensation expense of $17.4 million related to unvested stock options, which we expect to recognize over a weighted average period of 3.0 years.

Note 14. Subsequent Event

Convertible Note

On July 9, 2019, the Company entered into Amendment No. 1 to the Company's convertible note previously issued to Petrichor on December 14, 2018. Pursuant to the amendment, the terms of the note were amended such that (i) after June 30, 2019, the interest rate on the note is reduced to 6.00%; (ii) after June 30, 2019, accrued interest will be converted into common stock of the Company in connection with any conversion of the Note; provided that solely with respect to such accrued but unpaid interest, the conversion price will be an amount equal to the average volume-weighted average price of the Company's common stock for the 15 consecutive trading days prior to the conversion date; (iii) the mandatory conversion date is December 14, 2019; (iv) the maximum percentage provisions relating to a mandatory conversion of the Note were removed; (v) the Note is no longer required to be senior to any other indebtedness of the Company and its subsidiaries; and (vi) the limitation on the Company and its subsidiaries from incurring indebtedness were removed. See Note 6. Since the Note is convertible into shares of the Company's common stock on December 14, 2019, the Company determined that the classification as a long-term liability is appropriate as the debt will not be settled in cash.

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

In this Form 10-Q, the terms "Cryoport," "Company" and similar terms refer to Cryoport, Inc., and its wholly owned subsidiary, Cryoport Systems, Inc.

SAFE HARBOR FOR FORWARD LOOKING STATEMENTS:

This Quarterly Report on Form 10-Q 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. 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. 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 our Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on March 13, 2019 and those reports filed after the date of this Quarterly Report. Actual results may differ materially from any forward looking statement.

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 June 30, 2019 (unaudited) and the consolidated balance sheet as of December 31, 2018 (audited) and the related unaudited condensed consolidated statements of operations, comprehensive loss and stockholders' equity for the three and six months ended June 30, 2019 and 2018, and cash flows for the six months ended June 30, 2019 and 2018 and the related notes thereto (see Item 1. Financial Statements), as well as the audited consolidated financial statements of the Company for years ended December 31, 2018 and 2017, included in the Company's Form 10-K for the year ended December 31, 2018.

General Overview

Overview

Cryoport is a life sciences services company focused on providing critical solutions, such as temperature-controlled logistics, biostorage services to the biopharma, reproductive medicine and animal health markets. Our differentiated products and services enable our clients to ship, store and deliver biologics and other life sciences commodities in a continual temperature-controlled state, including ultra-low cryogenic and other temperature ranges.

Cryoport's advanced, comprehensive and technology-centric systems and solutions were designed to support the global high-volume distribution of commercial biologic and cell-based products regulated by the United States Food and Drug Administration (FDA) and other international regulatory bodies for distribution in the Americas, EMEA (Europe, the Middle East, and Africa) and APAC (Asia-Pacific) regions. Cryoport's solutions are also designed to support pre-clinical, clinical trials, Biologics License Applications (BLA), Investigational New Drug Applications (IND) and New Drug Applications (NDA) with the FDA as well global clinical trials initiated in other countries, where strict regulatory compliance and quality assurance is mandated. Our industry standard setting Chain of Compliance™ solution, which includes vital analytics, such as 'chain-of-condition' and 'chain-of-custody' information in a single data stream, empowers our clients' continuous vigilance over their commodities. In addition, our Chain of Compliance™ standard ensures full traceability of the equipment used and the processes employed, further supporting each client's goal to minimize risk and maximize success of their new biologics or other commodities as they are introduced into the global markets.

As part of our services, our technologies provide the ability for Cryoport personnel and our clients to monitor conditions of the internal shipping environment, location and other specified critical variables for each shipment in near real time. In accordance with client requirements, information is recorded and archived for each shipment for scientific, quality assurance and regulatory purposes in a secure cloud-based system that can be accessed globally. This information provides an audit trail that can verify the in-shipment condition in which the life sciences commodity, material, product, vaccine or therapy was shipped and/or stored.

One of the most important features of our Cryoport Express® Solutions is the sophisticated, cloud-based, logistics management platform, which is branded as the Cryoportal® Logistics Management Platform. The Cryoportal® supports the management of shipments through a single interface, which includes order entry, document preparation, customs documentation, courier management, near real-time shipment tracking, issue resolution, and regulatory compliance requirements. In addition, it provides unique and incisive information dashboards and validation documentation for every shipment through data collected by the SmartPak II™ Condition Monitoring System). The Cryoportal® can record and retain a fully documented history of all Cryoport Express® Shippers, including 'chain-of-custody', 'chain-of-condition', 'chain-of-identity', and Chain of Compliance™ information for each shipment, which is used to ensure that the stability of shipped biologic commodities are maintained throughout the shipping cycle. At the client's option, recorded information is archived, allowing the client to meet exacting requirements necessary for scientific work and/or for proof of regulatory compliance during the logistics process.

Our Cryoport Express® Solutions include a family of Cryoport Express® Shippers ranging from liquid nitrogen dry vapor shippers (-150℃) to our C3™ Shippers (2-8℃), which are powered by phase-change materials. Cryoport Express® Shippers are precision engineered assemblies that are reliable, cost-effective and reusable or recyclable. Our liquid nitrogen dry vapor Cryoport Express® Shippers utilize an innovative application of 'dry vapor' liquid nitrogen technology and, most often, include a SmartPak II™ Condition Monitoring System. Cryoport Express® Shippers meet International Air Transport Association ("IATA") requirements for transport, including Class 6.2 infectious substances. Cryoport Express® Shippers are also International Safe Transit Association ("ISTA") "Transit Tested" certified.

As part of our services, we assist and/or provide clients with secondary packaging that is placed inside the main chamber of our Cryoport Express® Shippers. In addition to vials, canes, straws, goblets, plates, etc., we also offer engineering and consulting services to assist clients in creating and developing customized secondary packaging that meet their specific requirements.

Our advanced technologies and dedicated personnel allow us to continue to expand our services footprint with a growing suite of services, products and competencies serving the life sciences industry, which currently include: information technology, primary and secondary packaging, near real-time monitoring, analytics, logistics distribution, consulting, laboratory relocation, fleet management, embedded logistics support, validation services (especially for shipping lanes and packaging). A sample of our client facing, value-added competencies addressing specific client requirements are as follows:

- "***Personalized Medicine and Cell-based Immunotherapy Solutions,"*** designed for autologous therapies in which our Cryoport Express® Solutions serve as an enabling technology for the safe and efficient transportation of leukapheresis or apheresis blood products as well as the manufactured autologous cellular-based immunotherapies by providing a comprehensive logistics solution for the verified chain of condition and chain of custody, chain of identity, and Chain of Compliance™ transport from, (a) the collection of the patient's blood or cells at a point-of-care setting, to (b) a central processing facility where they are manufactured into a personalized medicine, to (c) the safe, cryogenically preserved delivery of these often irreplaceable cells to a point-of-care treatment facility. If required, Cryoport Express® Shippers can then serve as a temporary freezer/repository supporting the efficient distribution of the personalized medicine to the patient when and where the medical provider needs it, without the expense and inconvenience of on-sight, cryopreservation storage freezers.

- ***"Allogeneic Therapy Solutions,"*** designed for allogeneic therapies in which our Cryoport Express® Solutions serve as an enabling technology for the safe and efficient transportation of health donor blood products as well as the manufactured allogeneic therapies by providing a comprehensive logistic solutions for the verified chain of condition, chain of custody, chain of identity, and Chain of Compliance™ transport from, (a) the blood collection center, to (b) the manufacturing facility for the allogeneic therapy, to (c) a storage and fulfillment facility, or (d) to a point-of-care treatment facility. Again, if required, the Cryoport Express® Shipper can then serve as a temporary freezer/repository to allow the efficient distribution of the personalized medicine to the patient.

- ***"Embedded Solutions,"*** our most comprehensive solution, which involves our management of the entire temperature-controlled logistics process for our client using Cryoport technology and Cryoport employees working on-sight at the client's location to manage all of the client's temperature-controlled logistics needs.

- ***"Fleet Management,"*** our fleet management support service is designed to reduce our clients upfront and recurring costs through optimized utilization of resources and minimization of equipment loss. We offer both complete and partial temperature-controlled outsourced fleet management services, including fleet evaluation and disposition (if required), inventory control, fleet maintenance and ongoing fleet requalification and validation.

- ***"Packaging Development,"*** using 'Design-of-Experiment' and 'Quality-by-Design' processes, Cryoport can design, engineer and employ customized packaging and/or accessories to ensure effective distribution of our client's critical commodities using our in-house team of packaging engineering competencies in the cryogenic, 2-8℃ and other temperature-controlled ranges to meet or exceed our client's specifications. Packaging development may include integration of our SmartPak II™ Condition Monitoring System and the accommodation of our Cryoportal® Logistics Management Platform into our clients' packaging configurations, providing full access to our logistics management support competencies.

- ***"Consulting Services,"*** provides our clients an opportunity to leverage our in-house talent to: design custom logistics plans, perform lane assessment, lane validation, carrier validation; design custom packaging and validation, permitting clinical trial logistics design; commercial launch planning; systems integration; and end user training.

- ***"Laboratory Relocation,"*** for large moves of life sciences commodities, we use redundant temperature-controlled shippers and environmentally controlled trucks. Along with our logistics partners, we ensure the integrity of client materials during all logistics phases, including loading, transport, unloading and placement. Our service includes lane and carrier permitting and validation. Our large sample capacity Cryoport Express® CryoMax™ Shipper has a holding time of up to 20 days and includes the benefit of our near real time SmartPak II™ Condition Monitoring System, which supplies monitoring information to our Cryoportal® Logistic Management Platform, providing LiveView information on the client's transport. By employing our 24/7/365 client support team to actively monitoring shipments and mitigate risks, we ensure safe shipping and relocation of large-scale collections.

- ***"powered by cryoport℠,"*** available to providers of shipping and delivery services who seek to offer a "branded" cryogenic logistics solution as part of their service offerings. "powered by cryoport℠" appears prominently on the offering software interface and packaging. This option for the client to private label its service is available upon committing to certain requirements, such as minimum annual shipping volumes.

In addition to the offerings above, Cryoport is continuously evaluating, expanding and improving its range of services and solutions in response to market needs and client demand.

We recently added bioservices services to our portfolio of solutions in response to our clients' needs for comprehensive and integrated solutions offerings and the expected growth in the global biostorage and bioservices markets, which are driven by the acceleration of clinical trials and the commercialization of regenerative medicine therapies on a global basis. Through the recent acquisition of the Cryogene business, we now provide comprehensive temperature-controlled sample management solution to the life science industry, including specimen storage, sample processing, collection, and retrieval. The spectrum of temperature-controlled solutions provided by the Company ranges from ambient, or controlled room temperature (20°C to 25°C), refrigerated (2°C to 8°C), to frozen and cryogenic (below 0°C to as low as −150°C). See note 11 to the accompanying condensed consolidated financial statements included in Item 1 of this report for further discussion of the Cryogene acquisition.

Competitive Advantages

With our first-to-market and technology-driven logistics services for the life sciences industry and over a decade of experience, we have established a unique lead over potential competitors. Furthermore, we are not aware of any company that offers Cryoport's full suite of solutions. Working with our tools in information technology, packaging and temperature-controlled logistics, we approach our growing markets with innovation, creative thinking and advanced technologies.

The most common alternatives to Cryoport's solutions are "older technologies" and/or systems. In fact, a portion of the biopharma market and much of the animal health market still uses hazardous liquid nitrogen or dry ice with no ongoing validation processes for their equipment or procedures. In the case of dry ice, the technology delivers temperatures of approximately -80℃ with standard deviations up to 14℃. Consequently, it provides an environment that allows cellular activity to continue and cells to degrade, impacting cell line performance and cell viability. Liquid nitrogen, on the other hand, while effective in holding cryogenic temperatures, is bulky, heavy, expensive and requires special handling to avoid spillage and accommodate weight. Both dry ice and liquid nitrogen are classified "hazardous" by IATA (International Air Transportation Association) and, therefore, are also classified as "dangerous goods," requiring additional permits and fees. Cryoport solutions on the other hand are classified as non-hazardous.

Through our experience, we know that logistics distribution can have a large impact on product/commodity conditions. This is especially important for high value and at times irreplaceable commodities that we transport, whether in support of a clinical trial or the commercial distribution of a product. We therefore go beyond traditional ISTA (International Safe Transit Association) packaging validation and have implemented Quality-by-Design processes that allow us to assess in-field events, the impact of logistics on the commodity being shipped, and the equipment being used for each individual shipments.

We have been qualified as a trusted temperature-controlled logistics solutions provider for hundreds of life sciences companies and institutions and, currently, support over 400 clinical trials in the regenerative medicine space. Cryoport has logged over 260,000 shipments to over 100 countries with hundreds of different types of life sciences materials. This experience and reputation, combined with over a decade of know-how and technology, provides us with significant competitive advantages. In fact, since our inception, we have experienced minimal client attrition.

In addition, Novartis and Kite Pharmaceuticals Inc. (a Gilead company) have both entrusted Cryoport to manage the global clinical shipments of its cell therapies trials and the commercial shipments of its CAR T-cell therapies, KYMRIAH® and YESCARTA®, respectively, which were the first two CAR T-cell therapies approved by the FDA. During the quarter ended June 30, 2019, bluebird bio's ZYNTEGLO™ received European Conditional Marketing Authorization, representing the third commercially approved product that Cryoport is expecting to support. Shipment volumes for ZYNTEGLO™ are expected to ramp in 2020 with the commercial launch.

Our competitive position is further enhanced by our "powered by cryoport℠" partnership agreements and alliances further described below.

We continuously enhance and broaden our solutions offering in order to maintain and extend what we believe to be a significant lead in the marketplace. We believe that it would take a serious potential competitor an extended period of time and investment to build out the tools, solutions, and competencies we possess along with our know-how. In addition to our lead as the first-to-market mover and leader in market share in the regenerative medicine space, we think our biggest competitive advantage falls into our trade secrets and our speed to market with new solutions. Our market leading position enables us to be uniquely tuned to the markets we serve, which enables us to anticipate and quickly react to client needs and market demand. We try to employ the best people in the industry, and we foster the development and implementation of new technologies to maintain that lead. In every aspect possible, we strive to be a 'green,' environmentally responsible company, which we consider to be a competitive advantage.

Strategic Logistics Alliances and Collaborations

We have been successful in establishing strategic distribution alliances around the world, under our "*powered by Cryoport℠*" strategy, as a long-term method of marketing our solutions to the life sciences industry. We have focused our efforts on leading companies in the logistics services industry as well as participants in the life sciences industry. The "*powered by Cryoport℠*" strategy with our alliance partners reflects our solutions being integrated into our alliance partner's services.

Cryoport supports the three largest integrators in the world, FedEx, DHL and UPS, with its advanced cryogenic logistics solutions for the life sciences industry and for logistics support. These three integrators collectively, have more than 87% of the express logistics aircraft in service and who, respectively, have been expanding other parts of their temperature-controlled offerings for the life sciences industry. To support each integrator's marketing efforts, we operate with each independently and confidentially in support of each company's respective strategy.

We also have relationships using our "*powered by cryoport℠*" strategy with the following alliance partners:

McKesson Specialty Health, a division of McKesson Corporation. In February 2018, we announced a strategic collaboration with McKesson Specialty Health. Adding Cryoport's integrated cold-chain capabilities and near real-time monitoring, the McKesson and Cryoport collaboration provides an end-to-end solution for complex products which require high-touch patient access and adherence support as well as temperature-controlled product transportation. McKesson Specialty Health works together with stakeholders across the healthcare delivery system to preserve and strengthen specialty care. Cryoport's solutions coupled with McKesson's end-to-end patient access and support services are focused on helping patients avoid delays in treatment through accelerated patient on-boarding, prior authorizations, end-user training and comprehensive adherence and educational support programs.

World Courier, a part of AmerisourceBergen. In July 2018 we announced World Courier's integration of Cryoport's full suite of temperature-controlled solutions into its global network. World Courier is a global specialty logistics company that designs world-class supply chain programs. The integration allows Cryoport's Chain of Compliance™ solutions availability to World Courier clients. The integrated platform combines the strengths of both the Cryoport and World Courier systems to their respective biopharmaceutical clients, allowing each client to proactively minimize risks to their cell and gene therapies through the entire biopharma supply chain in order to maintain the efficacy of their valuable commodities. Our integrated solutions will be offered through World Courier's global network of more than 140 company-owned offices operating across 50 countries, as well as directly through Cryoport's business development team.

Be The Match BioTherapies®. In October 2018, we announced a strategic partnership with Be The Match BioTherapies to deliver end-to-end supply chain services to the cell and gene therapy industry. Be The Match BioTherapies is the only cell and gene therapy solutions provider with customizable services to support the end-to-end cell therapy supply chain. Backed by the industry-leading experience of the National Marrow Donor Program/Be The Match, and a research partnership with the CIBMTR® (Center for International Blood and Marrow Transplant Research®), the organization designs solutions that advance cell and gene therapies in any stage of development. By pairing Cryoport's expertise in temperature-controlled logistics with Be The Match BioTherapies' expertise in apheresis center onboarding and management, case management and logistics, clinical research, and outcomes data collection and analysis, the two organizations will offer full end-to-end supply chain and outcomes support for companies developing and delivering autologous and allogeneic cell and gene therapies. An important part of the agreement is to integrate Be The Match BioTherapies' MatchSource® cell therapy supply chain software and Cryoport's Cryoportal® Logistics Management Platform. The outcome is a platform that manages more cell therapy products than any other solution in the marketplace, enabling cell and gene therapy companies to more rapidly discover, develop and deliver next-generation therapies. Our collaboration will support both organizations' efforts to standardize critical elements of the cell therapy supply chain, as well as processes in apheresis and transplant center networks.

EVERSANA™. In July 2019, we announced the formation of a strategic alliance with EVERSANA™. EVERSANA™ is a leading independent provider of global services to the life science industry. EVERSANA™ integrated solutions are rooted in the patient experience and span all stages of the product lifecycle to deliver long-term, sustainable value for patients, prescribers, channel partners and payers. The company serves more than 500 organizations, including innovative start-ups and established pharmaceutical companies. Through this alliance, we expect to provide EVERSANA™ and its clients with our full suite of logistics solutions under our 'powered by cryoport™' marketing model. This includes our Cryoport Express® Shippers, Cryoportal® Logistics Management Platform, leading-edge SmartPak II™ Condition Monitoring System and our advanced logistics management.

Cryoport's Positioning in the Life Sciences Industry

Life sciences technology advancements are expected to have a significant impact on global society over the next 25 years. The industry is growing in a way where research and manufacturing pipelines span across the globe. This also increases the need to mitigate supply chain risks, especially for cellular-based therapies/products and other life sciences commodities today and tomorrow.

Over the past several years, Cryoport has assumed the leadership position in supporting the rapidly growing regenerative medicine market with its temperature-controlled logistics solutions. According to the Alliance for Regenerative Medicine ("ARM") update for the second quarter of 2019, there were 932 regenerative medicine companies worldwide, conducting a total of 1,069 clinical trials of which 94 were in Phase III. The total targeted enrollment of patients in regenerative medicine clinical trials worldwide were 59,757 patients according to ARM's State of the Industry Briefing in January of 2019. Total global financings in this space totaled $2.6 billion in Q2 2019 and $4.8 billion for the first six months. The FDA stated that by 2025 it predicts that it will be approving 10 to 20 cell and gene therapy products per year. This data further amplifies the significant position regenerative medicine is taking in the development of new therapies and products in the life sciences industry.

The total cold chain logistics market for the life sciences industry has historically grown faster per annum than the total life sciences logistics market. For 2018, global cold chain logistics spending, overall, was forecasted to be $15.0 billion; with approximately $3.4 billion in spending supporting global clinical trials. By 2022, the global life sciences cold chain logistics market is forecast to grow to $18.6 billion for a 24% increase. The majority of the growth is a result of the recent advancements in the development of biologics and cell-based therapies. As a result, scientists, intermediaries, and manufacturers require means for cryogenically transporting and storing their work and products, such as CAR-T cell therapies, where temperatures must be maintained below the "glass point" (generally, below minus 136℃). In addition, our Cryoport Express® C3™ solution was specifically developed to address the front-end logistics of some autologous therapies that transport whole blood to the point of manufacturing, requiring a stable 2-8℃ temperature range. It is more robust than any competing shipper today with its exacting and reliable design. These solutions incorporate our Cryoportal® Logistics Management Platform and the SmartPak II™ Condition Monitoring System, giving our clients a seamless logistics record of all vital information for each therapy shipped on a worldwide basis.

We think Cryoport is appropriately positioned as a life sciences services company focused on providing solutions such as temperature-controlled logistics, bioservices and end-product fulfillment, to the regenerative medicine, reproductive medicine and animal health markets. Our differentiated products and services enable our clients to ship, store and deliver biologics and other commodities required to remain in a continual cryogenic or temperature-controlled state, such as CAR-T therapies and other cell therapies, gene therapies, embryos for reproductive medicine, vaccines, and stem cells. Our standard setting Chain of Compliance™, which includes vital analytics, including 'chain-of-condition' and 'chain-of-custody' information, in a single data stream, allows our clients continuous vigilance over their commodities to minimize risk and maximize success through traceability of the equipment used and the processes employed in supporting each client's therapy or other commodity.

Life Sciences Agreements

Our clients include life sciences companies and institutions that have engaged us to support their clinical studies and trials as well as the global distribution of their commercial biologics, vaccines and other products with our temperature-controlled logistics and bioservices solutions. Our most significant agreements are as follows:

Zoetis. In December 2012, we signed an agreement with Pfizer Inc. relating to Zoetis Inc. (formerly the animal health business unit of Pfizer Inc.) pursuant to which we are now managing all cryogenic shipments of Zoetis' key poultry vaccines. Under this arrangement, we provide on-site logistics personnel and our Cryoportal® Logistics Management Platform to manage shipments from the Zoetis manufacturing site in the United States to domestic customers as well as various international distribution centers. The Company manages Zoetis' total fleet of shippers used for this purpose, including liquid nitrogen shippers. In July 2013, the Agreement was amended to expand Cryoport's scope to manage all logistics of Zoetis' key frozen poultry vaccine to all Zoetis' international distribution centers as well as all domestic shipments. In October 2013, the Agreement was further amended to further expand Cryoport's role to include the logistics management for a second poultry vaccine. In April 2019, the Agreement was amended and extended through March 2022, subject to certain termination and extension provisions.

Novartis. In May 2017, we signed an agreement with Novartis Inc. to manage the global clinical and commercial shipments of its CAR-T cell therapies, including the commercial launch of CAR-T cell therapy, KYMRIAH® (CTL019), for children and young adults with B-cell ALL that is refractory or has relapsed at least twice. On August 30, 2017 Novartis received from the FDA the first ever CAR-T cell approval for the first indication of KYMRIAH®. Subsequently on May 1, 2018 the FDA approved KYMRIAH® for the treatment for adult patients with relapsed/refractory DLBCL. Following the U.S. approvals, on August 27, 2018 the EU approved KYMRIAH® for both ALL and DLBCL, Canadian approval on September 6, 2018, and Australian approval on December 20, 2018. Most recently, in April 2019, KYMRIAH® received approval from the Japanese regulator authority. Novartis has treated patients in 11 countries and has over 500 employees dedicated to the support of KYMRIAH®. Under our agreement with Novartis, Cryoport provides cryogenic packaging and shipping using its Cryoport Express® Shippers, monitoring using its SmartPak II™ Condition Monitoring System technology and communications and information recording using its Cryoportal® Logistics Management Platform to manage shipments from the Novartis manufacturing sites to their clinical and commercial sites for patient administration globally.

Kite/Gilead. In July 2017, we signed an agreement with Kite Pharmaceuticals Inc. (a Gilead company) to manage the clinical and commercial shipments of its CAR-T cell therapy, YESCARTA® (Axicabtagene Ciloleucel). On October 18, 2017, YESCARTA® became the first CAR-T therapy approved by the FDA for the treatment of adult patients with relapsed or refractory large B-cell lymphoma. Additionally, YESCARTA® received EU approval on August 27, 2018 for relapsed/refractory DLBCL and PMBCL. As of the end of the second quarter, Kite had 120 certified centers authorized to treat patients globally. Through these centers over 700 patients have been treated with YESCARTA®. Under our agreement with Kite, Cryoport provides cryogenic packaging and shipping using its Cryoport Express® Shippers, monitoring using its SmartPak II™ Condition Monitoring System technology and communications and information recording using its Cryoportal® Logistics Management Platform to manage shipments from the Kite manufacturing sites to their clinical and commercial sites of patient administration globally.

bluebird bio. We are currently supporting bluebird bio's clinical activity with our temperature-controlled logistics solutions and expect to support bluebird bio's commercial activity of its gene therapy, ZYNTEGLO™ once launched. On June 3, 2019, the EU approved ZYNTEGLO™ for patients 12 years and older with certain forms of Transfusion-Dependent BetaThalassemia (TDT). ZYNTEGLO™ is a one-time autologous gene therapy that adds functional copies of a modified form of the BetaGlobin gene into a patient's own hematopoietic (blood) stem cells (HSC's). bluebird bio has announced that the commercial shipments will begin in early 2020, with the first shipments planned for Germany, followed by the UK and Italy. bluebird bio has also announced plans to file for the U.S. approval of ZYNTEGLO™ by the end of 2019.

Cryoportal™ Logistics Management Platform

The Cryoportal® Logistics Management Platform records and retains a fully traceable and documented history of all serialized equipment and components as part of our Chain of Compliance™ solution, as well as "chain-of-condition" and "chain-of-custody" for every shipment, helping ensure that quality, safety, efficacy, and stability of shipped commodities are maintained throughout the process. Additionally, the Cryoportal® is used by Cryoport, our clients and business partners to automate the entry of orders, documentation preparation, to assist in managing logistics operations and to reduce administrative costs typically provisioned through manual labor relating to order-entry, order processing, preparation of shipping documents and back-office accounting. It is also used to support the high level of customer service expected by the life sciences industry. Certain features of the Cryoportal® are designed to reduce operating costs and facilitate the scaling of Cryoport's business. Examples of these features include automation of order entry, development of key performance indicators ("KPI's") to support efforts for continuous process improvements in our business, and programmatic exception monitoring to detect and sometimes anticipate delays in the shipping process, often before the customer or the shipping company is aware of them. These features offer significant value to our customers in terms of cost avoidance and risk mitigation.

The Cryoportal® Logistics Management Platform also serves as the communications center for the management, collection and analysis of SmartPak II™ Condition Monitoring System data collected in near real time from the field. Collected data is converted into information reports containing valuable and actionable information that becomes the quality control or "pedigree" of the shipment. This information can be utilized by Cryoport to provide valuable feedback in near real time to our clients relating to their shipments. Additionally, our SmartPak II™ Condition Monitoring System provides the ability to apply Quality by Design fundamentals to our logistics solutions enabling intervention and risk mitigation capabilities to be employed.

The Cryoportal® Logistics Management Platform has been developed as a "carrier-agnostic" system, allowing clients and the Cryoport Logistics Management team to work with any combination of integrators, freight forwarders, couriers and/or brokers depending on the specific requirements and/or client preferences. To increase operational efficiencies, the Cryoportal® Logistics Management Platform is integrated with the tracking systems of FedEx, DHL and UPS and other key logistics providers.

The Cryoportal® was developed for time-and temperature-sensitive shipments that are required to be maintained at specific temperatures, beginning with the most demanding cryogenic temperatures (-150℃) and moving upward to ambient (20-25℃) to ensure that the shipped samples/commodities/products are not subject to degradation or out of designated "safe" range temperatures. While our current focus is on cryogenic (-150℃) as well as 2-8℃ logistics within the life sciences industry, the use of the Cryoportal® Logistics Management Platform can and may be extended into other temperature-controlled ranges for the life sciences. To our knowledge, the Cryoportal® Logistics Management Platform is unique to temperature-controlled logistics in the life sciences industry. It is robust and has considerable capabilities. We frequently receive favorable feedback about the Cryoportal® from our clients and partners.

Cryoport Express® Shippers

Our Cryoport Express® Shippers are a family of shippers engineered specifically to serve the life sciences industry. Engineering of these devices, which are made up of proprietary packaging, dewar vacuum flasks, near real time electronic monitoring systems and engineered shock absorbing overpackaging requires multiple and varied engineering disciplines. Each Cryoport Express® Shipper is ISTA (International Safe Transit Association) validated and IATA, UN, International Civil Aviation Organization ("ICAO") compliant. Cryoport Express® Shippers are the highest level, most comprehensive logistics shippers serving the life sciences industry.

Cryogenic Cryoport Express® Shippers employ liquid nitrogen vapor shipper vacuum flask tanks capable of maintaining cryogenic temperatures of minus 150℃ or below for a dynamic shipping period of 10 days or more. A dry vapor cryogenic shipper is a device that uses liquid nitrogen contained inside a vacuum insulated vessel (vacuum flask tank), which serves as a refrigerant to provide stable storage temperatures below minus 150℃. Our Cryoport Express® Shippers are designed to ensure that there is no pressure build up as the liquid nitrogen evaporates. We have developed a proprietary retention system to ensure that liquid nitrogen stays inside the vacuum container, which allows the shipper to be designated as a dry vapor shipper meeting IATA requirements. Biological or pharmaceutical specimens are stored in a specimen chamber, referred to as a "well" inside the container and refrigeration is provided by gas evolving from the liquid nitrogen entrapped within the proprietary retention system. Specimens that may be transported using our cryogenic shipper include: live cells, scientific or pharmaceutical commodities such as cancer therapies, vaccines, diagnostic materials, semen, eggs, embryos, infectious substances, and other commodities that require continuous exposure to cryogenic temperatures, i.e., temperatures below minus 150℃.

An important feature of our Cryoport Express® Shippers is their compliance with the stringent packaging requirements of IATA Packing Instructions 602 and 650, respectively. These specifications include meeting internal pressure (hydraulic) and drop performance requirements. Under IATA guidelines, Cryoport Express® Shippers are classified as "Non-hazardous." Dry ice and liquid nitrogen are classified as "Dangerous Goods." Our shippers are also in compliance with International Civil Aviation Organization ("ICAO") regulations that prohibit egress of liquid nitrogen residue from the shipping packages. The ICAO is a United Nations organization that develops regulations for the safe transport of dangerous goods by air.

We currently offer dry vapor shippers with varying storage capacities, including our Cryoport Express® Standard Shipper, Cryoport Express® High Volume Shipper, Cryoport Express® Sliderite® Shipper, Cryoport Express® CXVC1 Shipper and Cryoport Express® CryoMax™, which has a capacity of 36,400 2.0 ml vials. Our Cryoport Express® Shippers are composed of aluminum (aircraft-grade) material, with an engineered well for holding high value biologics or other materials in its inner chamber.

Cryoport Express® Dry Vapor Shippers

Cryoport Express® Dry Vapor Shippers are lighter than liquid nitrogen flasks. They are engineered units that consist of dewar flasks, electronics, and engineered outer packaging. Cryoport Express™ Shippers include re-usable dry vapor liquid nitrogen storage containers (vacuum flask tanks) that, we believe, combine the best features of life sciences packaging, cryogenics science and vacuum insulation technology. Cryoport Express® Dry Vapor Shippers are composed of aluminum metallic dewar flasks, with wells for holding the biological material in the inner chambers. The dewar vessel is a device in which the conduction, convection and radiation of heat are reduced as much as possible giving it the capability of maintaining its contents at a near-constant temperature over relatively long periods of time. The inner chamber of the shippers is surrounded by a high surface, low-density material which retains the liquid nitrogen in-situ by absorption, adsorption, and surface tension. Absorption is defined as the taking up of matter in bulk by other matter, as in the dissolving of a gas by a liquid, whereas adsorption is the surface retention of solid, liquid or gas molecules, atoms or ions by a solid or liquid. This material absorbs liquid nitrogen relatively rapidly, while providing our shippers with hold times and capacities to transport biological materials safely and conveniently. The specimen-holding chamber has a primary cap to enclose the specimens/commodities, and a removable and replaceable secondary cap to further enclose the specimen/commodity-holding container and to contain the liquid nitrogen dry vapor. The entire dewar vessel is then wrapped in a plurality of insulating and cushioning materials and placed in an outer packaging that been engineered specifically for absorbing shock and the challenges encountered in transportation. This outer packaging also houses the Smart Pak II™ Condition Monitoring System which communicates with the Cryoportal™ Logistics Management Platform.

Cryoport Express® C3™ Shippers

Non-cryogenic, temperature-controlled Cryoport Express® Shippers employ sourced components that are modified and assembled to meet the requirements of the task for which they were designed. An example is the Cryoport Express® C3™ Shipper.

Cryoport Express® C3™ Shippers are designed to maintain a controlled temperature range of 2°-8°C for up to 96 hours under dynamic shipping conditions. These reusable shippers are offered as part of our *Cryoport. Certified. Cool.* or *C3™* Solution. It includes our Cryoport's SmartPak II™ Condition Monitoring System and the Cryoportal® Logistics Management Platform. This solution was introduced to support the growing need in the regenerative therapy market and to enable our clients to utilize our solutions for both, the transportation of leukapheresis and apheresis blood products as well as the manufactured autologous cellular-based immunotherapies.

Cryoport Express® Shipper Summary

We believe Cryoport Express® Shippers used in Cryoport Express® Solutions do the best job in the life sciences industry to mitigate risks. We believe that our Cryoport Express® Solutions are the most advanced and most cost-effective temperature-controlled logistics solutions available to the life sciences industry. We believe Cryoport Express® Solutions satisfy client needs and scientific and regulatory requirements relating to each shipment of time- and temperature-critical, frozen and/or refrigerated transport of biological materials, such as stem cells, cell lines, pharmaceutical clinical trial samples, gene biotechnology, infectious materials handling, animal and human reproduction markets. We believe that due to our proprietary technology, innovative design and systems, our Cryoport Express® Shippers are less prone to losing critical functional hold time than competing products.

Cryoport Express® SmartPak II™ Condition Monitoring System

For our clients, condition monitoring is a high-value feature as it is an effective and reliable method to determine that their commodity/product was not damaged and did not experience degradation during shipment due to temperature fluctuations or other undesirable conditions. Our SmartPak II™ Condition Monitoring System is designed to track the key aspects of each shipment that could affect the quality and/or timing of delivery of the commodity/product to its intended destination. This includes near real-time tracking using GPS, cellular and Wi-Fi technologies, technology monitoring of internal and external temperatures, humidity, barometric pressure, shock, orientation of the shipper, as well as exposure to light as a measure of security breaches, compromised packaging or shipper openings during transit. Our exacting temperature sensors are positioned within our Cryoport Express® Shippers to record the most accurate readings. The resultant temperature mapping includes both the temperature inside the chamber (which is closest to the actual biomaterial) and the external temperature. Our advanced SmartPak II™ Condition Monitoring System is engineered to work in tandem with our Cryoportal® Logistics Management Platform, enabling predictive and proactive monitoring of materials shipped. The data collected and resulting analytics, combined with the mapping of shipment check-in points, provide a holistic view of the complete shipping process. At the client's election, shipments can have a full 'chain-of-custody', chain-of-condition, and chain-of-identity along with other data monitoring analytics. Archival storage is available for every shipment.

Chain-of-Condition, Chain-of-Custody, and Chain-of-Identity

Chain-of-Condition information is essential for many life sciences customers. Our monitoring services are provided by our SmartPak II™ Condition Monitoring System, which provides data on the condition of our Cryoport Express® Shipper and the conditions in which commodities/products are being shipped, which is critical for temperature-sensitive biologics.

Chain-of-Custody relates to the traceability of which party has the physical custody of the Cryoport Express® Shipper during each segment of transport. With the assistance of an overlay on carrier check-ins and our algorithms, our SmartPak II™ Condition Monitoring System supplies a data monitor that reports chain-of-custody information, which is another essential information element required for temperature-sensitive biologics.

Chain-of-Identity refers to the traceability of the identity of each client's or patient's therapy that is inside of the Cryoport Express® Shipper, which can be tracked through the Cryoportal® Logistics Management Platform

The Cryoportal® Logistics Management Platform acts as the data repository for all shipment and condition information. Our customers can access their information via the cloud-based Cryoportal® Logistics Management Platform through an internet connection anywhere in the world and all data is securely retained for quality assurance and regulatory purposes.

Chain of Compliance™

During 2018 we introduced Cryoport's Chain of Compliance™ solution, as a new industry standard. Cryoport's Chain of Compliance™ goes beyond Chain of Condition and Chain of Custody by providing traceability of the equipment and processes supporting each client or patient therapy. The Chain of Compliance™ enables Cryoport to recall every transport that an individual Cryoport Express® Shipper has taken, the client it supported, the commodity transported, it's performance during transit, and each step that Cryoport performs before the shipper is put back into service. This includes container performance and requalification history, commodity history, courier handling and performance history, calibration history, and correlation competencies that can link in field events to equipment performance. A review of these requirements are as follows:

1. **Container performance history:** All transportation equipment should have a validated hold time standard that can change over time for multi-use equipment. Data supporting an accurate calculation of the hold time of a cold chain container should include the nitrogen evaporation rate, liquid nitrogen capacity, vacuum integrity, dynamic hold time, as well as the actual in field temperature, humidity, shock, and orientation data.

2. **Commodity history:** In addition to the performance of the equipment utilized for a given shipment, a complete historical record of the contents shipped in any given container should be tracked such that it can be certified that a given piece of equipment has only been used for the distribution of non-infectious human materials.

3. **Container (re)qualification history:** Additionally, accurate records should be maintained as to the requalification or testing of the performance of the equipment to be utilized. These records should also include any repairs or maintenance performed on the equipment, any deviations or damage during use, as well as any contamination or sterility issues over the entire historical usage of the equipment.

4. **Calibration history:** All calibration data for any electronic components of a given package should be traceable back to the equipment. This should include thermocouple calibration or validation data, battery performance, software or firmware updates by date and version, and serialized accessories that are archived by part number.

5. **Correlation:** Lastly, the ability to cross reference in-field handling events including shock, damage, delays, orientation, and anti-tamper competencies to the impact on the commodity shipped is a key requirement and should include the ability to cross reference the historical custody of the container. This should include all locations receiving the container, as well as the courier for freight partners who were responsible for the delivery of the container from origin to destination.

The main reason that the FDA and other regulatory bodies are interested in Cryoport's Chain of Compliance™ is that it provides the ability to collect, interpret, and leverage comprehensive data enabling a significantly more intelligent supply chain. Rather than reactively trying to determine what has gone wrong after multiple failures, it becomes possible to take a proactive approach. Moreover, we believe that effective implementation provides historical traceability of logistics processes, equipment, and third-party support entities, which enables the critical assessment of the complete supply chain to minimize failures and risk.

Cryoport Express® Analytics

Cryoport Express® Analytics information is captured by the Cryoportal® Logistics Management Platform to provide us and our clients access to important information from the shipments, which and assist in the management of our clients' logistics needs. We use anonymized information to support planning for future features of our solutions offering. Analytics is a term used by IT professionals to refer to performance benchmarks or KPI's that management utilizes to measure performance against desired standards. Examples for analytics tracked through the Cryoportal® include time-based metrics for order processing time and on-time deliveries by our shipping partners, as well as profiling shipping lanes to determine average transit times and predicting potential shipping exceptions based on historical metrics. Our analytics are utilized internally to proactively improve our client services and develop new offerings. Cryoport Express® Analytics information is also used by Cryoport Consulting to support some of its work.

Logistics Expertise, Consulting and Support

Cryoport's client services professionals provide 24/7/365 live logistics and monitoring services with specialized knowledge in the domestic and global logistics of life sciences material requiring controlled temperatures. Cryoport logistics professionals have validated shipping lanes in and out of well over 100 countries to ensure shipments maintain temperatures and arrive securely and on time.

Cryoport Consulting provides consulting services to assist life sciences companies in developing strategies for global cold chain logistics management and contingency options to protect their valuable, and often irreplaceable, biological commodities. Cryoport Consulting addresses the demand created by the worldwide advances in cellular based therapies, including immunotherapies, stem cells and CAR-T cells. Cell-based immunotherapies are driving broad shifts and challenges for the life sciences industry, including how to obtain, properly store and carefully transport the growing number of new, individualized, temperature sensitive therapies. Improper temperature maintenance or temperature excursions during any portion of a logistics cycle can adversely affect the viability of these biologically based commodities. Consequently, strategic, global logistics planning for cryogenic cold chain solutions has taken on a strategic importance to the life sciences industry and a rapidly growing demand for consulting expertise.

Other Development Activities

We continue to build out our ecosystem through partnerships and alliances. We are, also, continuing our research, engineering and development efforts to continue to advance our technology applications for temperature-controlled logistics and bioservices. We are further expanding the functionality of our Cryoportal® Logistics Management Platform and will advance our Smart Pak II™ Condition Monitoring technology to ensure our continued leadership and the highest level of effectiveness and efficiency in the temperature-controlled logistics for the life sciences industry.

As a result of the Cryogene acquisition in May 2019, we currently operate in two reportable segments: Global Logistics Solutions and Global Bioservices. The Global Logistics Solutions segment provides temperature-controlled logistics solutions to the life sciences industry through its purpose-built proprietary packaging, information technology and specialized cold chain logistics expertise. The Company provides leading edge logistics solutions to the biopharma, reproductive medicine and animal health markets to ship, store and deliver biologic materials, such as immunotherapies, stem cells, CAR-T cell therapies, vaccines and reproductive cells for clients worldwide. The Global Bioservices segment provides a comprehensive temperature-controlled sample management solution to the life science industry, including specimen storage, sample processing, collection, and retrieval. The spectrum of temperature-controlled solutions provided by the Company ranges from ambient, or controlled room temperature (20°C to 25°C), refrigerated (2°C to 8°C), to frozen and cryogenic (below 0°C to as low as −150°C). Our Chief Executive Officer is the chief operating decision maker for both segments.

Results of Operations

Three months ended June 30, 2019 compared to three months ended June 30, 2018:

The following table summarizes certain information derived from our condensed consolidated statements of operations:

	Three Months Ended June 30,			
	2019	**2018**	**$ Change**	**% Change**
	($ in 000's)			
Revenues	$ 8,464	$ 4,627	$ 3,837	82.9%
Cost of revenues	(4,125)	(2,123)	(2,002)	94.3%
Gross margin	4,339	2,504	1,835	73.3%
General and administrative	(3,259)	(2,669)	(590)	22.1%
Sales and marketing	(2,843)	(1,851)	(992)	53.6%
Engineering and development	(541)	(449)	(92)	20.6%
Interest expense	(334)	—	(334)	100%
Other income, net	119	7	112	1,578%
Provision for income taxes	(9)	(13)	4	(25.0)%
Net loss	$ (2,528)	$ (2,471)	$ (57)	(2.3)%

Total revenues

	Three Months Ended June 30,			
	2019	**2018**	**$ Change**	**% Change**
	($ in 000's)			
Global Logistics Solutions:				
Biopharmaceutical	$ 6,959	$ 3,849	$ 3,110	80.8%
Reproductive medicine	671	499	172	34.3%
Animal health	257	279	(22)	(7.6)%
Global Bioservices	577	—	577	100%
Total revenues	$ 8,464	$ 4,627	$ 3,837	82.9%

Revenues. We generated revenues from customers in all of our target life sciences markets, biopharma, reproductive medicine and animal health. Revenues increased $3.8 million or 82.9% to $8.5 million for the three months ended June 30, 2019, as compared to $4.6 million for the three months ended June 30, 2018. This increase was primarily driven by the ramp in commercial revenue from the therapies launched by Novartis and Kite/Gilead in late 2017, the continuing increase in the number of biopharmaceutical customers utilizing our services and the increase in clinical trials supported for these customers. Biopharmaceutical revenue increased $3.1 million or 80.8%, to $7.0 million for the three months ended June 30, 2019 as compared to $3.8 million for the three months ended June 30, 2018. Commercial revenue increased to $1.9 million for the three months ended June 30, 2019 as compared to $446,000 for the three months ended June 30, 2018. During the three months ended June 30, 2019, we added approximately 29 new biopharma clients and added 30 clinical trials, net of completed or terminated trials, of which 16 trials were in the Americas, 8 in EMEA and 6 in APAC. We now support 413 clinical trials (353 in the Americas, 53 in EMEA and 7 in APAC) compared to 283 clinical trials supported as of June 30, 2018 (257 in the Americas and 25 in EMEA and 1 in APAC). The number of Phase III clinical trials supported increased to 52 trials as of June 30, 2019 (39 in the Americas,12 in EMEA and 1 in APAC). This compares to 41 Phase III trials (34 in the Americas and 7 in EMEA) supported as of June 30, 2018. This increased activity in the clinical trial space is expected to drive future revenue growth as these clinical trials advance and resulting therapies are commercialized. Revenues in the reproductive medicine market increased by 34.3% for the three months ended June 30, 2019, as compared to 2018. This increase was driven by a 18.6% increase in revenues in the U.S. market through continued success of our CryoStork®-branded offering and a 36.0% increase in revenues in the international markets, which was primarily a result of our marketing initiatives and growing brand recognition in this market, driving stronger demand in the Americas and EMEA. Our revenue from animal health decreased 7.6% for the three months ended June 30, 2019, as compared to the same period in 2018, as a result of non-recurring activity in the previous year. Global Bioservices revenue was $576,500 for the second quarter of 2019 as a result of the acquisition of the Cryogene business in May 2019.

Gross margin and cost of revenues. Gross margin for the three months ended June 30, 2019 was 51.3% of revenues, as compared to 54.1% of revenues for the three months ended June 30, 2018**.** The decrease in gross margin by almost three percentage points is primarily due to the increased operating costs of our new global logistics centers in Livingston, New Jersey and Hoofddorp, The Netherlands that commenced operations during the third quarter of 2018. Our cost of revenues are primarily comprised of freight charges, payroll and associated expenses related to our global logistics centers, third-party charges for our European and Asian staging centers in the Netherlands and Singapore, depreciation expenses of our Cryoport Express® Shippers and supplies and consumables used for our solutions. Cost of revenues increased $2.0 million, or 94.3%, to $4.1 million for the three months ended June 30, 2019, as compared to $2.1 million in the same period in 2018. The increase in cost of revenues was primarily due to freight charges from the increased volume of shipments and an increase in operating costs for our global logistics centers.

General and administrative expenses. General and administrative expenses increased $589,900 the three months ended June 30, 2019 or 22.1% as compared to the same period in 2018. This increase is primarily due to an increase in stock-based compensation of $322,200, an increase in public company related expenses of $147,800 including legal fees, an increase in salaries and associated employee costs of $86,300, of which $83,400 relates to Cryogene as a result of the acquisition in May 2019, an increase in insurance premiums of $40,200, and an increase in travel and lodging expense of $28,700. These increases were partially offset by a decrease in facility cost allocations of $25,500.

Sales and marketing. Sales and marketing expenses, which includes logistics operations, increased $991,600 or 53.6% and is primarily due to an increase in salaries and associated employee costs of $545,400 which includes recruiting and relocation fees of $15,400 for the expansion of our domestic logistics force, an increase in stock-based compensation of $139,500, an increase in trade shows of $111,000, an increase in facility cost allocations of $81,300, an increase in travel and lodging expense of $68,700 and an increase in marketing and advertising promotions of $26,200.

Engineering and development expenses. Engineering and development expenses increased $92,300 or 20.6% for the three months ended June 30, 2019, as compared to the same period in 2018. The increase is primarily due to an increase in prototype expenses of $39,500, an increase in wages and associated employee costs to add a software development product manager and senior engineers of $29,900, an increase in stock-based compensation of $25,600 and an increase in facility cost allocation of $19,900. These increases were partially offset by a reduction of $25,100 in testing and development expenses. We continually strive to improve and expand the features of our Cryoport Express® Solutions. Our primary developments are directed towards facilitating the safe, reliable and efficient shipment of life science commodities through innovative and technology-based solutions. We supplement our internal engineering and development resources with subject matter experts and consultants.

Interest expense. Interest expense increased $333,900 for the three months ended June 30, 2019, as compared to the three months ended June 30, 2018 due to the interest on the convertible note issued in December 2018.

Other income, net. The other income, net for the three months ended June 30, 2019 is primarily due to investment income on our cash and cash equivalents and short-term investments.

Six months ended June 30, 2019 compared to six months ended June 30, 2018:

The following table summarizes certain information derived from our condensed consolidated statements of operations:

	Six Months Ended June 30,			
	2019	2018	$ Change	% Change
	($ in 000's)			
Revenues	$ 15,117	$ 8,650	$ 6,467	74.8%
Cost of revenues	(7,324)	(3,962)	(3,362)	84.9%
Gross margin	7,793	4,688	3,105	66.2%
General and administrative	(5,956)	(4,738)	(1,218)	25.7%
Sales and marketing	(5,251)	(3,436)	(1,815)	52.8%
Engineering and development	(1,031)	(778)	(253)	32.4%
Interest expense	(673)	—	(673)	100%
Warrant inducement and repricing expense	—	(899)	899	(100)%
Other income, net	211	23	188	821.5%
Provision for income taxes	(9)	(14)	5	(36.0)%
Net loss	$ (4,916)	$ (5,154)	$ 238	(4.6)%

Total revenues

	Six Months Ended June 30,			
	2019	2018	$ Change	% Change
	($ in 000's)			
Global Logistics Solutions:				
Biopharmaceutical	$ 12,599	$ 7,131	$ 5,468	76.7%
Reproductive medicine	1,455	1,001	454	45.3%
Animal health	486	518	(32)	(6.2)%
Global Bioservices	577	—	577	100%
Total revenues	$ 15,117	$ 8,650	$ 6,467	74.8%

Revenues. We generated revenues from customers in all of our target life sciences markets, biopharma, reproductive medicine and animal health. Revenues increased $6.5 million or 74.8% to $15.1 million for the six months ended June 30, 2019, as compared to $8.7 million for the six months ended June 30, 2018. This increase was primarily driven by the ramp in commercial revenue from the therapies launched by Novartis and Kite/Gilead in late 2017, the continuing increase in the number of biopharmaceutical customers utilizing our services and the increase in clinical trials supported for these customers. Biopharmaceutical revenue increased $5.5 million or 76.7%, to $12.6 million for the six months ended June 30, 2019, as compared to $7.1 million for the six months ended June 30, 2018. Commercial revenue increased to $3.3 million for the six months ended June 30, 2019, as compared to $740,400 for the six months ended June 30, 2018. During the six months ended June 30, 2019, we added approximately 51 new biopharma clients and added 56 clinical trials, net of completed or terminated trials, of which 37 trials were in the Americas, 13 in EMEA and 6 in APAC. This increased activity in the clinical trial space is expected to drive future revenue growth as these clinical trials advance and resulting therapies are commercialized. Revenues in the reproductive medicine market increased by 45.3% for the six months ended June 30, 2019, as compared to 2018. This increase was driven by a 40.6% increase in revenues in the U.S. market through continued success of our CryoStork®-branded offering and a 61.2% increase in revenues in the international markets, which was primarily a result of our marketing initiatives and growing brand recognition in this market, driving stronger demand in the Americas and EMEA. Our revenue from animal health decreased 6.2% for the six months ended June 30, 2019, as compared to the same period in 2018 as a result of non-recurring activity in the previous year. Global Bioservices revenue was $576,500 for the six months ended June 30, 2019, as a result of the acquisition of the Cryogene business in May 2019.

Gross margin and cost of revenues. Gross margin for the six months ended June 30, 2019 was 51.5% of revenues, as compared to 54.2% of revenues for the six months ended June 30, 2018. The decrease in gross margin by almost three percentage points is primarily due to the increased operating costs of our new global logistics centers in Livingston, New Jersey and Hoofddorp, The Netherlands that commenced operations during the third quarter of 2018. Our cost of revenues are primarily comprised of freight charges, payroll and associated expenses related to our global logistics centers, third-party charges for our European and Asian staging centers in the Netherlands and Singapore, depreciation expenses of our Cryoport Express® Shippers and supplies and consumables used for our solutions. Cost of revenues increased $3.4 million, or 84.9%, to $7.3 million for the six months ended June 30, 2019, as compared to $4.0 million in the same period in 2018. The increase in cost of revenues was primarily due to freight charges from the increased volume of shipments and an increase in operating costs for our global logistics centers.

General and administrative expenses. General and administrative expenses increased $1.2 million for the six months ended June 30, 2019 or 25.7% as compared to the same period in 2018. This increase is primarily due to an increase in stock-based compensation of $534,600, an increase in salaries and associated employee costs of $364,200, of which $83,400 relates to Cryogene as a result of the acquisition in May 2019, an increase in public company related expenses of $229,700 including legal fees, an increase in insurance premiums of $74,800, and an increase in travel and lodging expense of $29,900. These increases were partially offset by a decrease in facility cost allocations of $34,300.

Sales and marketing. Sales and marketing expenses, which includes logistics operations, increased $1.8 million or 52.8% and is primarily due to an increase in salaries and associated employee costs of $1.1 million which includes recruiting and relocating fees of $47,400 for the expansion of our domestic logistics force, an increase in stock-based compensation of $249,000, an increase in facility cost allocations of $248,500, an increase in travel and lodging expense of $99,400 and an increase in marketing, trade shows and advertising promotions.

Engineering and development expenses. Engineering and development expenses increased $252,200 or 32.4% for six months ended June 30, 2019, as compared to the same period in 2018. The increase is primarily due to $121,800 in wages and associated employee costs to add a software development product manager and senior engineers, an increase in facility cost allocation of $65,200, an increase in prototype expenses of $57,000, and an increase in stock-based compensation of $40,600. These increases were partially offset by a reduction of $29,400 in testing and development expenses and a reduction in travel and lodging expense of $9,500. We continually strive to improve and expand the features of our Cryoport Express® Solutions. Our primary developments are directed towards facilitating the safe, reliable and efficient shipment of life science commodities through innovative and technology-based solutions. We supplement our internal engineering and development resources with subject matter experts and consultants.

Warrant inducement and repricing expense. Warrant inducement and repricing expense for six months ended June 30, 2018 was due to the repricing of certain warrants for the tender offer that was completed in February 2018.

Interest expense. Interest expense increased $672,600 for six months ended June 30, 2019, as compared to the six months ended June 30, 2018 due to the interest on the convertible note issued in December 2018.

Other income, net. The other income, net for the six months ended June 30, 2019 is primarily due to investment income on our cash and cash equivalents and short-term investments.

Liquidity and Capital Resources

As of June 30, 2019, the Company had cash and cash equivalents of $80.6 million, $14.1 million in short-term investments and had working capital of $95.9 million. Historically, we have financed our operations primarily through sales of equity securities and debt instruments.

For the six months ended June 30, 2019, we used $1.3 million of cash for operations primarily as a result of the net loss of $4.9 million offset by non-cash expenses of $4.3 million primarily comprised of stock-based compensation expense and depreciation and amortization. Also contributing to the cash impact of our net operating loss, excluding non-cash items, was an increase in accounts receivable of $2.6 million offset by an increase in accounts payable and accrued expenses of $1.7 million and an increase in accrued compensation of $271,800.

Net cash used in investing activities of $27.1 million during the six months ended June 30, 2019 was primarily due to the $20.4 million acquisition of the Cryogene business on May 14, 2019, $6.0 million purchase of short-term investments, and $2.6 million for the capitalization of software development costs for our Cryoportal™ Logistics Management Platform, and additional purchases of Cryoport Express® Shippers, Smart Pak II™ Condition Monitoring Systems and computer equipment, partially offset by the maturity of short-term investments of $2 million.

Net cash provided by financing activities totaled $71.6 million during the six months ended June 30, 2019, primarily as a result of $68.8 million in net proceeds from the June 2019 public offering and $2.9 million in proceeds from the exercise of stock options and warrants, which was partially offset by payments $19,700 for deferred financing costs and $11,400 for finance lease liabilities.

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. 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.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

In the normal course of business and by the nature of our global operations, we are exposed to risks associated with foreign currency exchange rate fluctuations relating to payments we make to vendors and employees based in Europe.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures.

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the timelines specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to our management, including our Principal Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure. 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.

As required by Securities and Exchange Commission Rule 13a-15(b), we carried out an evaluation, under the supervision and with the participation of our management, including our Principal Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report. Based on the foregoing, our Principal Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of June 30, 2019 at the reasonable assurance level.

The foregoing assessment excludes our acquisition on May 14, 2019 of Cryogene Partners, for which we paid $20.4 million at closing. See Note 11 to the condensed consolidated financial statements for additional information. This exclusion is in accordance with the general guidance issued by the Staff of the SEC that an assessment of a recent business acquisition may be omitted from management's report on internal control over financial reporting in the first year of consolidation.

Changes in internal control over financial reporting.

There were no changes in our internal controls over financial reporting during the fiscal quarter ended June 30, 2019 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

None

ITEM 1A. RISK FACTORS

The risks described in *Part I*, *Item 1A*, *Risk Factors*, in our Annual report on Form 10-K for the year ended December 31, 2018 and the following risk factors, 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 Relating to the Cryogene Acquisition

The integration and operation of acquired businesses, including Cryogene, may disrupt our business and create additional expenses, and we may not achieve the anticipated benefits of the acquisitions.

Integration of an acquired business involves numerous risks, including assimilation of operations of the acquired business, such as Cryogene, and difficulties in the convergence of systems and processes, the diversion of management's attention from other business concerns, risks of entering markets in which we have had no or only limited direct experience, assumption of unknown or unquantifiable liabilities, difficulties in completing strategic initiatives already underway in the acquired company, and unfamiliarity with partners of the acquired company, each of which could have a material adverse effect on our business, results of operations and financial condition. The integration of a company the size of Cryogene into our business may be more difficult and time consuming than anticipated, and we may be unable to achieve the expected synergies and operating efficiencies within the expected time frames or at all. We cannot assure that these risks or other unforeseen factors will not offset the intended benefits of the acquisitions, in whole or in part.

We may be adversely affected by the occurrence of natural disasters or other events at Cryogene's biostorage facility that disrupt our business operations.

Cryogene operates a 21,476 square foot state-of-the-art biostorage facility located in Houston, Texas, specializing in the secure storage of biological specimens, materials and samples. If natural disasters or similar events, like hurricanes, fires or explosions or large-scale accidents or power outages, were to occur that prevented us from using all or a significant portion of Cryogene's biostorage facility, that damaged critical infrastructure, or that otherwise disrupted operations at such facility, this could affect our ability to maintain ongoing operations and cause us to incur significant expenses. Insurance coverage may not be adequate to fully cover losses in any particular case. Accordingly, the occurrence of natural disasters or other events at Cryogene's biostorage facility could materially and adversely affect our business, financial condition and results of operations.

We may face claims for liability related to the damage of customer specimens, materials and samples attributed to the failure of Cryogene's storage systems or services, exposing us to significant financial or reputational harm.

Cryogene specializes in the secure storage of biological specimens, materials and samples covering the full range of temperatures from cryogenic through controlled room temperature. Any damage to these specimens, materials and samples may be attributed to a failure of Cryogene's storage systems or services, which could lead to claims for damages made by customers and could also harm our relationship with customers and damage our reputation in the life sciences industry, resulting in material harm to our business.

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

None

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable

ITEM 5. OTHER INFORMATION

None

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+	XBRL Instance Document.
101.SCH+	XBRL Taxonomy Extension Schema Document.
101.CAL+	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF+	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB+	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE+	XBRL Taxonomy Extension Presentation Linkbase Document.

+ Filed herewith.

SIGNATURES

In accordance with the requirements of the Exchange Act, the Registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Cryoport, Inc.

Dated: August 9, 2019

By: */s/ Jerrell W. Shelton*

Jerrell W. Shelton
Chief Executive Officer

Dated: August 9, 2019

By: */s/ Robert S. Stefanovich*

Robert S. Stefanovich
Chief Financial Officer

EXHIBIT 31.1

CERTIFICATION
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 quarterly 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 quarterly report;

3. Based on my knowledge, the financial statements, and other financial information included in this quarterly 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 quarterly 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 my 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 quarterly report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under my 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 quarterly report my conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this quarterly report based on such evaluation; and

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

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

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

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

Date: August 9, 2019

/s/ Jerrell W. Shelton

JERRELL W. SHELTON
Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION
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 quarterly 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 quarterly report;

3. Based on my knowledge, the financial statements, and other financial information included in this quarterly 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 quarterly 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 my 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 quarterly report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under my 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 quarterly report my conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this quarterly report based on such evaluation; and

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

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

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

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

Date: August 9, 2019

/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 June 30, 2019 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 Quarterly 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 Quarterly 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

August 9, 2019

In connection with the Quarterly Report of Cryoport, Inc. (the "Company") on Form 10-Q for the period ended June 30, 2019 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 Quarterly 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 Quarterly 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

August 9, 2019

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.