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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2019

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

For the transition period from _____ to _____.

Commission File Number: 001-34632

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

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

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

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

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

Title of Each Class	**Trading Symbol(s)**	**Name of Each Exchange on Which Registered**
Common Stock, $0.001 par value	CYRX	The NASDAQ Stock Market LLC
Warrants to purchase Common Stock	CYRXW	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act:
Warrants to purchase Common Stock

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such

files). Yes ☒ No ☐

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

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

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

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

The aggregate market value of common stock held by non-affiliates of the registrant as of June 28, 2019 was $445,594,200 based on the closing sale price of such common equity on such date (excluding 11,162,742 shares of common stock held by directors and officers, and any stockholders whose ownership exceeds five percent of the shares outstanding as of June 28, 2019).

As of March 1, 2020, there were 37,644,867 shares of the registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

None

TABLE OF CONTENTS

FORWARD-LOOKING STATEMENTS

This Form 10-K contains certain forward-looking statements. These forward-looking statements involve a number of risks and uncertainties. These forward-looking statements can generally be identified as such because the context of the statement will include certain words, including but not limited to, "believes," "may," "will," "expects," "intends," "estimates," "anticipates," "plans," "seeks," "continues," "predicts," "potential," "likely," or "opportunity," and also contains predictions, estimates and other forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and in reliance upon the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are based on the current beliefs of the Company's management, as well as assumptions made by and information currently available to the Company's management. Readers of this Form 10-K should not put undue reliance on these forward-looking statements, which speak only as of the time this Form 10-K was filed with the Securities and Exchange Commission (the "SEC"). Reference is made in particular to forward-looking statements regarding the success of our products, product approvals, product sales, revenues, development timelines, product acquisitions, liquidity and capital resources and trends. Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. Cryoport Inc.'s actual results may differ materially from the results projected in the forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed in this Annual Report on Form 10-K, including the "Risk Factors" in "Item 1A — Risk Factors", and in "Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Part II.

Past financial or operating performance is not necessarily a reliable indicator of future performance, and you should not use our historical performance to anticipate results or future period trends. We can give no assurances that any of the events anticipated by the forward-looking statements will occur or, if any of them do, what impact they will have on our results of operations and financial condition. Except as required by law, we do not undertake to update any such forward-looking statements and expressly disclaim any duty to update the information contained in this Form 10-K.

PART I

Item 1. *Business*

Overview

Cryoport Inc. ("Cryoport", "we", or "our") is a life sciences services company that is an integral part of the supply chain supporting the biopharma, reproductive medicine and animal health markets. We are redefining logistics for the life sciences industry by providing a unique platform of critical solutions including highly differentiated temperature-controlled logistics, which include advanced packaging and informatics, and biostorage services. Through our products, services and unparalleled expertise, we enable our clients to ship, store and deliver cellular-based materials and drug products as well as other life sciences commodities in a precise, defined temperature-controlled state.

Cryoport's advanced platform, comprised of comprehensive and technology-centric systems and solutions are designed to support the global high-volume distribution of commercial biologic and cell-based products and therapies 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 as global clinical trials initiated in other countries, where strict regulatory compliance and quality assurance is mandated. Our industry standard setting Chain of Compliance™ solutions, which include vital analytics, such as 'chain-of-condition' and 'chain-of-custody' information in a single data stream, empower our clients' continuous vigilance over their respective 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 of minimizing risk and maximizing success of their respective new biologics or other products and therapies as they are introduced into the global markets.

As part of our services, our platform of technologies provides the ability for Cryoport personnel, and our clients, to monitor conditions of the internal shipping environment, geographic 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 by authorized personnel 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 ®"). 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 and monitoring, 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™ Condition Monitoring System (the "SmartPak™"). 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 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. The 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™ Condition Monitoring System. Our Cryoport Express® Shippers are purpose built. One example is the launch of our Advanced Therapy Shippers™ for the Regenerative Medicine market, the development of which was announced in September 2019. The Cryoport Express® Advanced Therapy Shippers™ are designed to ensure that each shipper has only been used for human-based therapies and materials. Additionally, the Advanced Therapy Shippers™ provide complete traceability of the condition in which the commodity was shipped and all supporting equipment and components. The Advanced Therapy Shippers™ also provide verification information and supply chain support for biopharma companies developing and commercializing cell and gene therapies and address potential risks of cross contamination of equipment and materials during use, delivery and distribution of biopharmaceutical materials.

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 platform of solutions, we 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, cassettes, etc., we 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 supporting the life sciences industry, which currently include: consulting, information technology, primary and secondary packaging, analytics, logistics distribution, laboratory relocation, fleet management, embedded logistics support and validation services (e.g., for shipping lanes and packaging). A sample of our client facing, value-added solutions addressing specific client requirements include:

- ***"Cell-based Autologous Immunotherapy (Personalized Medicine) Solutions,"*** designed for 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. This is accomplished by providing a comprehensive logistics solution for the verified *chain-of-condition*, *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 for infusion into the patient. The Advanced Therapy Shippers™ were designed specifically for this market. If required, Cryoport Express® Shippers can also 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 healthy 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 for infusion into the patient. This is another market where the Advanced Therapy Shipper™ will play a role. Again, if required, the Cryoport Express® Shipper can serve as a temporary freezer/repository to allow the efficient distribution of the personalized medicine to the patient.

- ***"Embedded Solutions,"*** one of our most comprehensive solutions, involves our management of the entire temperature-controlled logistics process for a client using Cryoport technology and Cryoport employees working on-site at the client's location to manage all of the client's temperature-controlled logistics needs. This solution is currently employed in the animal health market.

- ***"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 engineering team with 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™ Condition Monitoring System and the accommodation of our Cryoportal® Logistics Management Platform into our clients' software and 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 and 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 capacity of up to 36,400 2.0ml vials and a holding time of up to 20 days and includes the benefit of our SmartPak™ Condition Monitoring System, which supplies monitoring information to our Cryoportal® Logistic Management Platform, providing Live View™ 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" temperature-controlled 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 examples above, Cryoport is continuously evaluating, expanding and improving its range of services and solutions in response to market needs and client demand.

During 2019, we added bioservices services to our platform of solutions to provide for 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 our recent acquisition of the biostorage business of Cryogene Partners ("Cryogene"), we now provide comprehensive temperature-controlled sample management solution to the life science industry, including specimen storage, sample processing, collection, and retrieval. Cryogene operates a recently expanded 21,000 square foot state-of-the-art biostorage facility located in Houston, Texas, specializing in the secure storage of biological specimens, materials and samples. See Note 11 to the accompanying consolidated financial statements included in Item 1 of this report for further discussion of the Cryogene acquisition.

Competitive Advantages

With our first-to-market platform of solutions, technology-driven logistics services and over a decade of experience serving the life sciences industry, we have established a substantial lead over potential competitors. Furthermore, we are not aware of any company that offers services comparable to Cryoport's full platform of solutions, capabilities or competencies. Working with our depth of information technology, packaging and temperature-controlled logistics, our management, technical, business development and service support teams approach our growing markets with adaptability, innovation, and creative thinking.

The most common alternatives to Cryoport's platform of 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 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 430 clinical trials in the regenerative medicine space. Cryoport has logged over 300,000 shipments to over 100 countries with hundreds of different types of life sciences materials. Our 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 subsidiary of Gilead Sciences) have both entrusted Cryoport to manage their respective global clinical shipments of cell therapies trials and the commercial shipments of their CAR T-cell therapies, KYMRIAH® and YESCARTA®, respectively, which were the first two CAR T-cell therapies approved by the FDA. In June 2019, bluebird bio's ZYNTEGLO™ received Conditional Marketing Authorization from the European Medicines Agency (EMA), representing the third commercially approved product that Cryoport supports. Shipment volumes for ZYNTEGLO™ are expected to ramp in 2020 following the staged commercial launch in January 2020.

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

We continuously enhance and broaden our platform in order to maintain and extend what we believe to be a significant lead in the marketplace. We believe that it would take a potential competitor an extended period of time and substantial investment to build out the tools, solutions, and competencies we have developed along with our market-specific 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 and effective 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.

Strategic Logistics Alliances and Collaborations

We have been successful in establishing strategic alliances around the world, under our Compliance Unified Ecosystem™ and "*powered by cryoport®*" strategies, 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. These strategies drive integration of our solutions 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 each has been expanding other parts of their respective temperature-controlled offerings for the life sciences industry. To support each integrator's respective marketing strategy, we operate with each independently and confidentially.

We also have relationships using our Compliance Unified Ecosystem™ 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. Cryoport's platform of capabilities, together with McKesson's suite of services 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. The collaboration is 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 provides World Courier clients access to Cryoport's Chain of Compliance™ solutions. 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 a 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 integrated Be The Match Biotherapies/Cryoport platform has the ability to manage 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 supports 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 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. EVERSANA serves more than 500 organizations, including innovative start-ups and established pharmaceutical companies. Through this alliance, we 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™ Condition Monitoring System and our advanced logistics management capabilities.

Vineti, Inc. In September 2019, Vineti and Cryoport announced a commercial partnership designed to extend end-to-end delivery of cell and gene therapies to a growing number of patients. Pairing Vineti's supply chain orchestration (SCO) platform with Cryoport's logistics platform provides an end-to-end solution for advanced therapies, supporting the assurance of improved drug product quality and patient safety. Vineti and Cryoport together seek to leverage both of their commercial and clinical phase experiences and insights from serving biopharma customers. With Vineti's platform expected to be deployed in more than 300 clinical centers world-wide within the next year, and Cryoport serving more than 430 clinical trials and three commercialized therapies, the collaboration between the two companies provides a broad-based global solution. Vineti was co-founded by GE and the Mayo Clinic.

LONZA. In November 2019, Lonza, an integrated solutions provider that creates value along its Healthcare Continuum®, and Cryoport announced a partnership to support companies in the cell and gene therapy market. As a part of this commitment, Lonza announced Cryoport as its preferred partner in the management of transport and delivery of patient tissues on a global basis, with the continued goal of seamless service for Lonza's customers and their patients. Lonza and Cryoport will work to remove the supply chain hurdles faced by developers of personalized therapeutics, including autologous therapies, matched-allogeneic therapies, and personalized cancer vaccines, as they prepare for the commercial launch of their respective therapies.

The goal of the partnership is to provide fully integrated solutions including, but not limited to, co-location of manufacturing, bioservices and distribution facilities to improve and enhance responsiveness and optimized product workflow, automated data management providing integrated data entry, and process optimization that reduces risk, increases transparency and improves certainty.

Lonza, is a global company with more than 100 sites and offices and approximately 15,500 full-time employees worldwide at the end of 2018. Four of the Lonza facilities are '*centers of excellence'* dedicated to cell and gene therapy. Its flagship, dedicated cell-and-gene-therapy manufacturing facility is located in Houston, Texas, which is in close proximity to our planned Global Supply Chain Center in Houston, Texas, which we expect to be operational during the fourth quarter of 2020.

Cryoport's Positioning in the Life Sciences Industry

Life sciences technology advancements are expected to have a significant impact on our global society over the next 25 years. The industry is growing in a way where research and manufacturing pipelines span the globe. These complex and sensitive pipelines will drive increasing requirements to mitigate supply chain risks, especially for cellular-based therapies/products and other life sciences commodities today and tomorrow.

Cryoport, with its platform solutions, has assumed the leadership position in supporting a crucial part of the rapidly growing regenerative medicine market that is poised for continued expansion. According to the Alliance for Regenerative Medicine ("ARM") update as of the end of 2019, there were over 987 regenerative medicine companies worldwide, with 547 (55%) in the Americas, in 238 (24%) in EMEA and 202 (21%) in APAC. According to the ARM update, these companies were conducting a total of 1,066 clinical trials of which 381 were in Phase I, 591 in Phase II and 94 in Phase III. The total targeted enrollment of patients in regenerative medicine clinical trials worldwide was reported as 59,757 patients in January 2019. For t2019, the total global financings in this space totaled $9.8 billion. An FDA spokesperson stated that it anticipates it will receive more than 200 INDs per year beginning in 2020, and that the FDA will be approving 10 to 20 cell and gene therapies per year by 2025. This data amplifies the significant position regenerative medicine is taking in the development of new therapies and products within the life sciences industry.

According to market research reports, 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℃).

On the other hand, 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 competing shippers with its exacting and reliable design. This solution incorporates our Cryoportal® Logistics Management Platform and the SmartPak™ Condition Monitoring System, giving our clients a seamless logistics record of all vital information for each therapy shipped on a worldwide basis.

We believe Cryoport is well positioned as a life sciences platform company focused on redefining logistics by providing a platform of advanced solutions such as temperature-controlled logistics, bioservices and end-product fulfillment, to the regenerative medicine, reproductive medicine and animal health markets. Our differentiated platform of 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 through traceability of the equipment used and the processes employed to minimize risk and maximize success in the development of new products and therapies.

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 platform of 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. (a global animal health company spun off from Pfizer), which was subsequently amended such that we are now managing all cryogenic shipments of Zoetis' key poultry vaccines. Under this arrangement, we provide our embedded solution of 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. In addition to utilizing the Cryoport Express® Shippers, Cryoport also manages Zoetis' own fleet of shippers used for this purpose, including liquid nitrogen shippers. In April 2019, the agreement was further 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 of adult patients with relapsed/refractory DLBCL. Thereafter, Novartis announced that KYMRIAH® was approved for both ALL and DLBCL: by the EU on August 27, 2018, , by Canada on September 6, 2018, and by Australia on December 20, 2018. In April 2019, Novartis announced that KYMRIAH® had received approval from the Japanese regulator authority for both ALL and DLBCL. Novartis has qualified over 200 treatment centers and more than 20 countries worldwide have coverage for at least one indication. Novartis reported fiscal year 2019 revenue of $278 million from KYMRIAH® compared to $76 million for fiscal year 2018. Under our agreement with Novartis, Cryoport provides its full platform of cryogenic packaging and shipping using its Cryoport Express® Shippers, monitoring using its SmartPak ™ 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 subsidiary of Gilead Sciences) 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 2019, Kite had 168 certified centers authorized to treat patients globally. Through these centers approximately 2,500 patients have been treated with YESCARTA®. Gilead reported fiscal year 2019 revenue of $456 million from YESCARTA® compared to 264 million for fiscal year 2018. In addition to YESCARTA®, Kite filed for regulatory approval of KTE-X19 for the treatment of mantle cell lymphoma in the fourth quarter of 2019 and expects commercial approval in the second half of 2020. Under our agreement with Kite, we provide our platform of cryogenic packaging and shipping using our Cryoport Express® Shippers, monitoring using our SmartPak™ Condition Monitoring System technology and communications and information recording using our 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 platform of temperature-controlled logistics solutions and are now also supporting bluebird bio's commercial activity of the gene therapy, ZYNTEGLO™. 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). On June 3, 2019, the EU approved ZYNTEGLO™ for patients 12 years and older with certain forms of Transfusion-Dependent BetaThalassemia (TDT). On January 13, 2020, bluebird bio announced the commercial launch in Germany at the University Hospital of Heidelberg. bluebird bio has initiated the rolling BLA submission for approval of ZYNTEGLO™ in the U.S. and is engaged with the FDA in discussions regarding the requirements and timing of the various components of the rolling BLA submission. Subject to these ongoing discussions, bluebird bio has indicated that it is currently planning to complete the BLA submission in the first half of 2020.

Cryoport's platform is made up of the following technologies and solutions:

Cryoportal® Logistics Management Platform (the "Cryoportal®")

The Cryoportal® 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 logistics 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.

Although focused on effectiveness and risk reduction, 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 ("KPIs") 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® also serves as the communications center for the management, collection and analysis of SmartPak™ Condition Monitoring System data 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 to our clients relating to their shipments. Additionally, our SmartPak™ 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® 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® 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 or therapies are not subject to degradation or out of a designated "safe" range temperature band. While our current focus is on cryogenic (-150℃) as well as 2-8℃ logistics within the life sciences industry, the use of the Cryoportal® can and may be extended into other temperature-controlled ranges for the life sciences. To our knowledge, the Cryoportal® is unique to temperature-controlled logistics in the life sciences industry. It is robust and has considerable capabilities and 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, a 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 validated and IATA, UN, International Civil Aviation Organization ("ICAO") compliant. We believe Cryoport Express® Shippers are the most comprehensively developed temperature-controlled packaging solutions serving the life sciences industry.

Amongst other technologies employed, Cryoport's cryogenic Cryoport Express® Shippers include 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. It 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. Our retention system ensures 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 evaporating from the liquid nitrogen entrapped within the retention system. Biological material 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 cellular commodities that require continuous exposure to cryogenic temperatures, i.e., temperatures below minus 150℃.

The dry vapor liquid nitrogen storage containers (vacuum flask tanks) are reusable and combine the best features of life sciences packaging, cryogenics science and vacuum insulation technology. The inner chamber of the shippers is surrounded by a high surface, low-density material which retains the liquid nitrogen in-situ by absorption 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.

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," whereas older technologies often use dry ice and liquid nitrogen, which are classified as "hazardous" by IATA and, therefore, are also classified as "dangerous goods." Our shippers are also in compliance with 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 liquid nitrogen 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. The core of 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.

Because Cryoport Express® Shippers are "powered" by liquid nitrogen in dry vapor form they are lighter than liquid nitrogen flasks, which yields a safer form of transportation and lower freight costs. In addition to the advanced dewar flasks, our Cryoport Express® Shippers are engineered units that consist of advanced electronics and engineered outer packaging. The entire dewar vessel is then wrapped in a plurality of cushioning materials and placed in an outer packaging that been specifically engineered for absorbing shock and the challenges encountered in transportation. This outer packaging also houses the SmartPak™ Condition Monitoring System which communicates with the Cryoportal™ Logistics Management Platform.

Cryoport Express® Advanced Therapy Shippers™

In September 2019, the Company announced it was expanding its Cryoport Express® product line with the launch of the Advanced Therapy Shippers™ dedicated to the Regenerative Medicine market. The Advanced Therapy Shippers™ are designed to ensure that each shipper has been used only for human-based material and advanced therapies and provides complete traceability of all equipment, components and commodities. The Advanced Therapy Shippers™ provide verification information and supply chain support for biopharma companies researching and commercializing cell and gene therapies and addresses the potential risk of cross contamination of materials during use, delivery and distribution of biopharmaceutical materials.

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 SmartPak™ Condition Monitoring System, which communicates with 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 (2-8°C) as well as the manufactured autologous cellular-based immunotherapies (cryogenic temperatures).

Cryoport Express® Shipper Summary

We believe the Cryoport Express® Shippers used in our Cryoport Express® Solutions are uniquely designed to mitigate risks and our Cryoport Express® Solutions are the most advanced and 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™ Condition Monitoring System

For our clients, condition monitoring is a critical 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™ Condition Monitoring System is designed to track the key aspects and condition 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™ 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 for quality assurance and regulatory purposes.

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™ 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™ 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 also be tracked through the Cryoportal® Logistics Management Platform

The Cryoportal® serves as the data repository for all shipment and condition information. Our customers can access their specific information via the cloud-based Cryoportal® 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, chain of custody* and *chain of identity* 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 transportation and delivery of the container from origin to destination.

We believe 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 designed to minimize failures and risk.

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 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 information technology (IT) professionals to refer to performance benchmarks or KPIs that management utilizes to measure performance against desired standards. Examples of 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 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 over 100 countries to ensure shipments maintain temperatures and arrive securely and on time.

Consulting services

Consulting Services leverages Cryoport's industry-leading expertise and capabilities to support our clients at all phases of their commercialization, from early clinical studies and trials all way into their commercialization to ensure proactive regulatory compliance, employ best practices and ensure full Chain of Compliance™ for their temperature-sensitive materials.

Our Consulting Services teams provide end to end temperature-controlled solutions expertise operating as extensions of our clients' teams and trusted advisors. We customize our solutions to our client needs and our suite of offerings include: Shipping Risk Assessments and Shipping Lane Validations, Packaging Validation and Support, Custom Packaging and Accessory Design, Commercial Launch Planning, Systems Integration, Custom Reporting, Development of Standard Operating Procedures (SOPs) and Documentation, Training and Onboarding Services, as well as new service offerings to support our client's needs.

Other Development Activities

We continue to build out our Compliance Unified Ecosystem™ through partnerships and alliances. We are, also, continuing our research, engineering and development efforts to further 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™ 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 a platform of 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.

Government Regulations

We are subject to numerous domestic federal, state and local laws and regulations and the laws and regulations of global jurisdictions relating to matters regarding shipments, customs, import, export, safe working conditions, manufacturing practices, environmental protection and disposal of hazardous or potentially hazardous substances. We may incur significant costs to comply with such laws and regulations now or in the future.

The shipping of biologic products, biologic commodities, diagnostic specimens, infectious substances and dangerous goods, whether via air or ground, falls under the jurisdiction of many state, federal and international agencies. The quality of the packaging that protects a product or biologic commodity determines whether it will arrive at its destination in a satisfactory condition. Currently the most stringent regulations we are subject to are the dangerous goods regulations. Many of the regulations for transporting dangerous goods in the United States are determined by international rules formulated under the auspices of the United Nations. Dangerous goods are usually one-time shipments and are not a part of our standard recyclable Cryoport Express® service. When we ship dangerous goods, we follow strict and stringent guidelines.

ICAO is the United Nations organization that develops regulations (Technical Instructions) for the safe transport of dangerous goods by air. If shipment is by air, compliance with the rules established by the IATA is required. IATA is a trade association made up of airlines and air cargo couriers that publishes annual editions of the IATA Dangerous Goods Regulations. These regulations interpret and add to the ICAO Technical Instructions to reflect industry practices. Additionally, the Centers for Disease Control ("CDC") has regulations (published in the Code of Federal Regulations) for interstate shipping of specimens.

Our Cryoport Express® Shippers meet Packing Instructions 602 and 650 and are certified for the shipment of Class 6.2 Dangerous Goods per the requirements of the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air and IATA. Our present and planned future versions of the Cryoport SmartPak™ Condition Monitoring Systems will likely be subject to regulation by the Federal Aviation Administration ("FAA"), Federal Communications Commission ("FCC"), Food and Drug Administration ("FDA"), IATA and possibly other agencies which may be difficult to determine on a global basis.

Storage of biological materials that are classified as drug products for human therapeutic use (either for investigational use or commercially approved) or materials used in the manufacture of drug products for human therapeutic use, is regulated by the FDA under Title 21 Code of Federal Regulations ("CFR") part 210 & 211. Facilities must be compliant with current Good Manufacturing Practice ("GMP") regulations which are enforced by the FDA through registration and audit. If the drug product is exported to other countries, then the storage needs to comply with the relevant local regulations.

Manufacturing and Raw Materials

Manufacturing. We source components for our Cryoport Express® Shippers from multiple suppliers that manufacture to our engineering specifications using in part proprietary technology and know-how to mitigate supply chain risks. We also use "of-the-shelf" products, which we may modify to meet our requirements. For some components, however, there are relatively few alternate sources of supply and the establishment of additional or replacement suppliers may or may not be accomplished immediately. Should this occur, we endeavor to mitigate risk by an increase in our inventory level to cover our total forecasted demand giving us time to secure additional qualified suppliers. Some of our Cryoport Express® Shippers also use components that were formerly manufactured in-house and that are now outsourced. The central electronic devices currently used in our SmartPak™ Condition Monitoring Systems have been acquired from a single source with calibration and alterations done by an independent third party.

Our vendor/partner relationships allow us to concentrate on further advancing and expanding our platform of solutions for the life sciences to meet the growing and varied demands for validated temperature-controlled solutions in the life sciences industry. We think our current supply structure provides us the opportunity to rapidly scale to support our client's commercialization activities; however, we continue to work to improve our current sourcing and to continue to mitigate risks therein.

Raw Materials. Various common raw materials are used in the manufacture of our shippers and in the development of our technologies. These raw materials are generally available from several alternate distributors and manufacturers. We have not experienced any significant difficulty in obtaining these raw materials.

Patents, Copyrights, Trademarks and Proprietary Rights

In order to remain competitive, we must develop and maintain protection on the proprietary aspects of our platform of technologies. We rely on a combination of patents, copyrights, trademarks, trade secret laws and confidentiality agreements to protect our intellectual property rights.

We file patent applications to protect innovations arising from our research, development and design. We currently own approximately 4 issued patents and are pursuing approximately 14 pending patent applications throughout the world. Our patents generally protect certain aspects of our shippers, packaging, and related technology. We also own certain copyrights relating to certain aspects of our products and services. We own 16 registered U.S. trademarks and 27 additional trademark applications pending in the U.S. and foreign countries. Many of our trademark rights in foreign countries are filed under the Madrid Protocol and designate China, Japan, Australia, Singapore, or the European Union. Our trademarks generally protect the names of our company, products, and key service brands.

Our success depends in part upon our ability to continue to develop proprietary products and technologies and to obtain patent coverage for these products and technologies. We intend to file trademark and patent applications covering any newly developed products, methods and technologies. However, there can be no guarantee that any of our pending or future filed applications will be issued as patents or registered as trademarks. There can be no guarantee that the U.S. Patent and Trademark Office or some third party will not initiate an interference proceeding involving any of our pending applications or issued patents. Finally, there can be no guarantee that our issued patents or future issued patents, if any, will provide adequate protection from competition.

Patents provide some degree of protection for our proprietary technology. However, the pursuit and assertion of patent rights involve complex legal and factual determinations and, therefore, are characterized by significant uncertainty. In addition, the laws governing patent issuance and the scope of patent coverage continue to evolve. Moreover, the patent rights we possess or are pursuing generally cover our technologies to varying degrees. As a result, we cannot ensure that patents will issue from any of our patent applications, or that any of the issued patents will offer meaningful protection. In addition, our issued patents may be successfully challenged, invalidated, circumvented or rendered unenforceable so that our patent rights may not create an effective barrier to competition. We must also pay maintenance fees at set intervals for our patents to not expire prematurely. The laws of some foreign countries may not protect our proprietary rights to the same extent as the laws of the United States. There can be no assurance that any patents issued to us will provide a legal basis for establishing an exclusive market for our products or provide us with any competitive advantages, or that patents of others will not have an adverse effect on our ability to do business or to continue to use our technologies freely. As with all patents, we may be subject to third parties filing claims that our technologies or products infringe on their intellectual property. We cannot predict whether third parties will assert such claims against us or whether those claims will hurt our business. If we are forced to defend against such claims, regardless of their merit, we may face costly litigation and diversion of management's attention and resources. As a result of any such disputes, we may have to develop, at a substantial cost, non-infringing technology or enter into licensing agreements. These agreements may be unavailable on terms acceptable to such third parties, or at all, which could seriously harm our business or financial condition.

With respect to our trademarks, we file and pursue trademark registrations on words, symbols, logos, and other source identifiers that consumers use to associate our products and services with us. Although our registered trademarks carry a presumption of validity, they can be challenged and invalidated and as such, we cannot guarantee that any trademark registration is infallible.

We also rely on trade secret protection of our intellectual property. We attempt to protect trade secrets by entering into confidentiality agreements with employees, consultants and third parties, although, in the past, we have not always obtained such agreements. It is possible that these agreements may be breached, invalidated or rendered unenforceable, and if so, our trade secrets could be disclosed to our competitors. Despite the measures we have taken to protect our intellectual property, parties to such agreements may breach confidentiality provisions in our contracts or infringe or misappropriate our patents, copyrights, trademarks, trade secrets and other proprietary rights. In addition, third parties may independently discover or invent competitive technologies, or reverse engineer our trade secrets or other technology. Therefore, the measures we are taking to protect our proprietary technology may not be adequate.

Customers and Distribution

As a result of growing globalization, including in such areas as biologics, biopharma, biotechnology, clinical trials, distribution of biopharmaceutical products and reproductive medicine, the requirement for effective and reliable solutions for keeping clinical samples, pharmaceutical products and other specimen at controlled temperatures takes on added significance due to the more complex shipping routes, extended shipping times, potential custom delays and general logistics challenges. We believe our platform of Cryoport Express® Shippers, SmartPak™ Condition Monitoring Systems, the Cryoportal® Logistics Management Platform and our logistics expertise enable us to be well positioned to take advantage of the growing demand for effective and efficient international transport of temperature sensitive life sciences commodities/products resulting from the value and sensitivity of the commodities/products being shipped and continued globalization, which is a notable trend within the life sciences and biotechnology industries. This is especially the case for the new therapies being developed in the regenerative medicine market, such as CAR-T cell therapies, that require cryogenic temperatures to maintain efficacy.

There were two customers that accounted for 24.1% and 12.8% of our total revenues during the year ended December 31, 2019. There was one customer that accounted for 18.2% of revenues during the year ended December 31, 2018. No other single customer accounted for over 10% of our total revenues during the years ended December 31, 2019 and 2018. Revenues from one customer of our Global Bioservices segment represents approximately 80.2% of that segment's net revenues, however, it was less than 10% of our total revenues for the year ended December 31, 2019.

Our geographical revenues, by origin, for the years ended December 31, 2019 and 2018, were as follows:

	2019	2018
Americas	84.9%	91.0%
Europe, the Middle East and Africa (EMEA)	13.3%	7.0%
Asia Pacific (APAC)	1.8%	2.0%

Pharmaceutical Clinical Trials. Every United States based pharmaceutical company developing a new drug or therapy must seek development protocol approval by the FDA. These clinical trials are designed to test the safety and efficacy of the potential new drug/therapy among other things. A significant amount of clinical trial activity is managed by several large Clinical Research Organizations ("CROs").

In connection with the clinical trials, due to globalization, companies can enroll patients from all over the world and may need to regularly submit a blood or other specimen at the local hospital, doctor's office or laboratory. These samples are then sent to specified testing laboratories, which may be local or in another country. The testing laboratories will typically set the requirements for the storage and shipment of blood specimens. In addition, therapies used by the patients may require frozen shipping to the sites of the clinical trials. While both domestic and international shipping of these specimens may be accomplished using dry ice today, international shipments especially present several problems, as dry ice, under the best of circumstances, can only provide freezing for one to two days in the absence of re-icing (which is quite costly). Because shipments of packages internationally can take longer than one to two days or be delayed due to flight cancellations, incorrect destinations, labor problems, ground logistics, customs delays and safety reasons, dry ice is not always a reliable and/or cost-effective option. Clinical trial specimens are often irreplaceable because each one represents clinical data at a prescribed point in time, in a series of specimens on a given patient, who may be participating in a trial for years. Sample integrity during the shipping process is vital to retaining the maximum number of patients in each trial. Our shippers are ideally suited for this market, as our longer hold time ensures that specimens can be sent over long distances with minimal concern that they will arrive in a condition that will cause their exclusion from the trial. There are also many instances in domestic shipments where Cryoport Express® Shippers will provide higher reliability and be cost effective.

Furthermore, the IATA requires that all airborne shipments of laboratory specimens be transmitted in either IATA Instruction 650 or 602 certified packaging. We have developed and obtained IATA certification of our Cryoport Express® platform, which is ideally suited for this market, due to the elimination of the cost to return the reusable shipper.

Biotechnology and Diagnostic Companies. The biotechnology market includes basic and applied research and development in diverse areas such as stem cells, gene therapy, DNA tumor vaccines, tissue engineering, genomics, and blood products. Companies participating in the foregoing fields rely on the frozen transport of specimens in connection with their research and development efforts, for which our Cryoport Express® Shippers are ideally suited.

Cell Therapy Companies. Rapid advancements are underway in the research and development of cell-based therapies, which involve cellular material being infused into a patient. In allogeneic cell therapies, the donor is a different person than the recipient of the cells. Autologous cell therapy is a personalized therapeutic intervention that uses an individual's cells, which are cultured and expanded outside the body, and reintroduced into the donor. Once cells are manufactured into a cellular therapy, in either case, they must be shipped cryogenically for which our Cryoport Express® Shippers are ideally suited.

Central Laboratories. With the increase and globalization of clinical studies and trials, logistics has become more complex and ensuring sample integrity has become more challenging. International courier costs are now consuming a significant portion of global protocol budgets. We believe laboratories performing the testing of samples collected during the conduct of these global multi-site studies are looking for reliable state-of-the-art logistics solutions.

Pharmaceutical Distribution. The current focus for the Cryoport Express® platform also includes the area of pharmaceutical distribution. There are a significant number of therapeutic therapies currently or anticipated soon to be undergoing clinical trials. After the FDA approves them for commercial marketing, it will be necessary for the manufacturers to have a reliable and economical method of distribution to the physician who will administer the product to the patient. It is likely that the most efficient and reliable method of distribution will be to ship a single dosage to the administering physician. These therapies are typically identified to individual patients and therefore will require a complete tracking history from the manufacturer to the patient. The most reliable method of doing this is to ship a unit dosage specifically for each patient. If such therapies require maintenance at frozen or cryogenic temperatures, each such shipment will require a cryogenic shipping solution. Cryoport can provide the technology to meet this need.

Fertility Clinics and In Vitro Fertilization ("IVF"). Maintaining cryogenic temperatures during shipping and transfer of in vitro fertilization specimens like eggs, sperm, or embryos is critical for cell integrity in order to retain viability, stabilize the cells, and ensure reproducible results and successful IVF treatment. We believe that our solutions for this market, branded as CryoStork® services, are very compelling and well received. The global IVF services revenue market generated $12.5 billion in 2018 and is projected to reach $26.4 billion by 2026, growing at a compound annual growth rate (CAGR) of 9.8% from 2019 to 2026. The Assisted Reproductive Technology ("ART") industry is also starting to undergo a significant change due to the consolidation of clinic networks into large corporations or venture backed organizations, which we believe will allow us to further build out our leadership position and set industry standards.

Animal Health Companies. The global animal health market size is expected to reach $73.6 billion by 2027, representing a CAGR of 5.8% from 2016 through 2027. The market is largely driven by a significant rise in the zoonotic and food-borne diseases globally. This unprecedented disease prevalence has encouraged companies to produce advanced vaccines and pharmaceuticals. The high demand has also resulted in the subsequent rise in the number of companies making consistent efforts to control risks of pathogen contamination and food-borne diseases, which is contributing to market growth. In addition to food animal production, companion animal support is another emerging area in which companies are investing heavily. This can be attributed to the fact that in the U.S. alone, 68 percent of households now include a pet, up from 58 percent in 1988, with total U.S. pet industry expenditures projected to rise. Globally, 62% of animal health revenue is driven by food animals and 38% companion animals. Cryoport is well positioned to support both vaccine distribution and distribution of animal sperm and embryos on a global basis, both of which require our platform of temperature-controlled logistics solutions.

Sales and Marketing

We have a sales and marketing team led by our Chief Commercial Officer that drives our business development, program management, consulting, marketing and other related activities. Given the global nature of our business, we plan to continue to broaden our sales and marketing reach in all corners of the world with emphasis on the Americas, EMEA and the Asia-Pacific regions. We plan to hire additional sales and marketing personnel globally and implement marketing initiatives intended to increase awareness of Cryoport and its advanced temperature-controlled solutions serving the life sciences industry.

Industry and Competition

Our products and services are sold into a rapidly growing segment of the temperature-controlled supply chain industry focused on the temperature sensitive packaging, shipping and storing of biologics and other life sciences commodities. This growth is fueled in part by the advancements in biology and continued globalization, and is expected to continue to increase even more in the future as more domestic and international biotechnology firms expand clinical trials and introduce pharmaceutical products into the market that require continuous transportation and storage at cryogenic temperatures. This principle also applies to the animal health and reproductive medicine markets. We believe these advances will require a greater dependence on passively controlled temperature transport systems (i.e., systems having no external power source). In addition, we expect that industry standards and regulations will be introduced globally, requiring more comprehensive tracking and validation of shipping temperatures.

We believe that advancements and growth in the following markets have resulted in the need for increased reliability, efficiencies and greater flexibility in the temperature sensitive segment of the life sciences logistics and supply chain market:

- biopharmaceuticals
- cell-based therapies
- gene therapy
- stem cell technology
- cell lines
- vaccines
- biopharmaceutical product distribution
- clinical trials, including transport of tissue culture samples
- diagnostic specimens
- infectious sample materials
- inter/intra-laboratory diagnostic testing
- temperature-sensitive specimens
- biological samples, in general
- environmental sampling
- reproductive material for in vitro fertilization (IVF)
- Animal Health

Cryoport's platform of solutions are comprehensive and integrated for maximum reliability, economy and total effectiveness. Cryoport's total platform enables life sciences companies to utilize the superior liquid nitrogen dry vapor technology without having to make capital investments or developing in-house logistics expertise and systems by offering a complete solution, which includes the cloud-based Cryoportal® logistics management platform, the SmartPak™ Condition Monitoring Systems and our 24/7/365 logistics support. Cryoport allows the clients to outsource logistics and focus on its core competencies while maintaining visibility of all logistics related information.

Within our targeted biotechnology and life sciences markets there is limited known direct competition to our Cryoport Express® Solutions. We compete with liquid nitrogen and dry ice solutions effectively by use of the improved and integrated hardware and software technology in our products, including our comprehensive logistics management software platform, the Cryoportal® and through the use of our service-enabled business model. Our Cryoport Express® Solutions provide simple and cost-effective solutions for temperature-controlled transport of biologics and other life sciences materials. The Cryoportal® assists with the management, scheduling and shipping of the Cryoport Express® Shippers, removing the burdens associated with other methods.

Factors that we believe give us a competitive advantage is our comprehensive and tested business model that fully integrates our Cryoport Express® shippers with our Cryoportal® Logistics Management Platform and SmartPak™ Condition Monitoring Systems into a seamless shipping, tracking and monitoring solution. In addition, we have a first-mover advantage, supporting over 430 clinical trials in the regenerative medicine space. Our reputation, combined with over a decade of know-how and technology, provides us with significant competitive advantages. Since our inception, we have experienced minimal client attrition.

Companies that offer services that could be considered competitive to certain components of our platform of solutions in our Global Logistics and Global Bioservices segments include Thermo Fisher Scientific Inc., specialty couriers, such as World Courier Group, Inc., Quick Life Science Group and Marken Limited, the division of Biolife Solutions known as SAVSU Technologies, Inc and Brooks Life Sciences. In addition, life science companies can develop their own inhouse temperature-controlled logistics solutions by sourcing containers and data loggers and developing software, systems and procedures to cover their logistics needs. However, we have not identified any competition that offers a solution that is as comprehensive as our platform of solutions are and has been proven in the global market to the same extent as our solutions have.

Engineering and Development

Our research, development and engineering efforts are focused on continually investigating new technologies that can improve our services and improving the features of our platform of Cryoport Express® Solutions, which includes our cloud-based Cryoportal® Logistics Management Platform, Cryoport Express® Shippers, secondary packaging solutions, our SmartPak™ and other condition monitoring systems. These efforts are expected to lead to the introduction of additional features, including shippers of varying sizes and for various temperature ranges, based on market requirements, further advanced informatics and improved monitoring systems. We are continuously researching alternative and new technologies, lower cost materials, utilization of higher volume assembly methods, enabling technologies, etc. that will make it practical to provide a wider range of Cryoport Express® Solutions.

Alternative technologies to liquid nitrogen in dry vapor form, alternative materials and/or new information and communication technologies may be used in the future to expand our potential market for our platform of Cryoport Express® Solutions.

Cryoport's Quality Assurance Program

Cryoport's Quality System is based upon ISO 9001:2015 (Quality management systems – Requirements) as a foundation, along with a structure of procedures and instructions based upon strong operational practices of checks and balances. This system ensures proper controls from the initial contract, through processing, shipping and storage, to proper monitoring and data collection, to successful completion of each transaction or shipment.

Cryoport is currently working with an Accredited Certification Body to attain ISO Certification, which is expected to be completed by the second quarter of 2020. In addition, the Quality Management System is being enhanced and integrated with GxP elements (i.e. Good Manufacturing Practices and Good Distribution Practices) that are applicable to temperature-controlled logistics and bioservices for the life sciences industry. It is Cryoport's mandate to provide the highest level of quality and to meet and/or exceed customer requirements.

This system will further integrate additional elements of Cryoport's business processes, risk management, design controls, software systems validation, and leadership commitment to the Quality Management System.

Employees

The efforts of our employees are critical to our success. We believe that we have assembled a strong management team with the experience and expertise needed to execute our business strategy. We anticipate hiring additional personnel as needs dictate to implement our global growth strategy. As of December 31, 2019, we had 125 employees and consultants: 105 full-time, one part-time, 16 temporary and 3 consultants.

Corporate History and Structure

We are a Nevada corporation originally incorporated under the name G.T.5-Limited ("GT5") on May 25, 1990. In connection with a Share Exchange Agreement, on March 15, 2005 we changed our name to Cryoport, Inc. and acquired all of the issued and outstanding shares of common stock of Cryoport Systems, Inc., a California corporation, in exchange for 200,901 shares of our common stock (which represented approximately 81% of the total issued and outstanding shares of common stock following the close of the transaction). Cryoport Systems, Inc., which was originally formed in 1999 as a California limited liability company, and subsequently reorganized into a California corporation on December 11, 2000, remains the operating company under Cryoport, Inc. Our principal executive offices are located at 112 Westwood Place, Suite 350, Brentwood, TN 37027. The telephone number of our principal executive office is (949) 470-2300, and our main corporate website is www.cryoport.com. The information on or that can be accessed through our website is not part of this Form 10-K.

The Company became public via a reverse merger with a shell company in May 2005. Over time the Company has transitioned from being a development company to a fully operational public company, providing a platform of temperature-controlled logistics solutions to the life sciences industry globally.

Information about our Executive Officers

The following are our executive officers as of the filing date of this Form 10-K:

Jerrell W. Shelton. Mr. Shelton became a member of our board of directors in October 2012 and was appointed President and Chief Executive Officer of the Company in November 2012. He was appointed Chairman of the Board in October 2015. He served on the Board of Directors and standing committees of Solera Holdings, Inc. from April 2007 through November 2011. From June 2004 to May 2006, Mr. Shelton was the Chairman and CEO of Wellness, Inc., a provider of advanced, integrated hospital and clinical environments. Prior to that, he served as Visiting Executive to IBM Research and Head of IBM's WebFountain. From October 1998 to October 1999, Mr. Shelton was Chairman, President and CEO of NDC Holdings II, Inc. Between October 1996 and July 1998, he was President and CEO of Continental Graphics Holdings, Inc. And from October 1991 to July 1996, Mr. Shelton served as President and CEO of Thomson Business Information Group. Mr. Shelton has a B.S. in Business Administration from the University of Tennessee and an M.B.A. from Harvard University. Mr. Shelton's extensive leadership, management, strategic planning and financial expertise through his various leadership and directorship roles in public, private and global companies, makes him well-qualified to serve as a member of the board of directors.

Robert S. Stefanovich. Mr. Stefanovich became Chief Financial Officer and Treasurer for the Company in June 2011. In 2019, he was also given the title Senior Vice President. From 2011 to 2019, Mr. Stefanovich served as the Secretary of the Company. From June 15, 2012 to November 4, 2012, Mr. Stefanovich served as the Principal Executive Officer of the Company. From November 2007 through March 2011, Mr. Stefanovich served as Chief Financial Officer of Novalar Pharmaceuticals, Inc., a venture-backed specialty pharmaceutical company. Prior to that, he held several senior positions, including interim Chief Financial Officer of Xcorporeal, Inc., a publicly traded medical device company, Executive Vice President and Chief Financial Officer of Artemis International Solutions Corporation, a publicly traded software company, Chief Financial Officer and Secretary of Aethlon Medical Inc., a publicly traded medical device company and Vice President of Administration at SAIC, a Fortune 500 company. Mr. Stefanovich also served as a member of the Software Advisory Group and an Audit Manager with Price Waterhouse LLP's (now PricewaterhouseCoopers) hi-tech practice in San Jose, CA and Frankfurt, Germany. He currently also serves as a board member of Project InVision International, a provider of business performance improvement solutions. He received his Master of Business Administration and Engineering from University of Darmstadt, Germany.

Available Information

Our main corporate website address is www.cryoport.com. The information on or that can be accessed through our website is not part of this Form 10-K. We electronically file with the Securities and Exchange Commission (SEC) our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to the reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. We make available free of charge on or through our website copies of these reports as soon as reasonably practicable after we electronically file these reports with, or furnish them to, the SEC. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains an internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC at www.sec.gov.

ITEM 1A. RISK FACTORS

Risks Related to Our Financial Condition

We have incurred significant losses to date and may continue to incur losses.

We have incurred net losses in each fiscal year since we commenced operations. The following table represents net losses incurred for each of our last two reporting periods:

	Net Loss
Year Ended December 31, 2019	$ 18,331,500
Year Ended December 31, 2018	$ 9,556,000

As of December 31, 2019, we had an accumulated deficit of $159.3 million. In order to achieve and sustain revenue growth in the future, we must significantly expand our market presence and revenues from existing and new customers. We may continue to incur losses in the future and may never generate revenues sufficient to become profitable or to sustain profitability. Continuing losses may impair our ability to raise the additional capital required to continue and expand our operations.

We may need to raise additional capital in the future, and if we are unable to secure adequate funds on terms acceptable to us, we could be unable to execute our business plan.

To remain competitive, we must continue to make investments in the development and broadening of our platform of solutions, the expansion of our sales and marketing activities, and the expansion of our global logistics operations infrastructure as we increase sales domestically and internationally. If cash on hand, short-term investment and cash generated from our operations is insufficient to fund such growth, we could be required to raise additional funds through the issuance of equity or debt securities in the public or private markets, or through a collaborative arrangement. Additional financing opportunities may not be available to us, or if available, may not be on favorable terms. The availability of financing opportunities will depend, in part, on market conditions, and the outlook for our business. Any future issuance of equity securities or securities convertible into equity securities could result in substantial dilution to our stockholders, and the securities issued in such a financing could have rights, preferences or privileges senior to those of our common stock. In addition, if we raise additional funds through debt financing, we could be subject to debt covenants that place limitations on our operations. We may not be able to raise additional capital on reasonable terms, or at all, or we could use capital more rapidly than anticipated. If we cannot raise the required capital when needed, we may not be able to satisfy the demands of existing and prospective customers, we could lose revenue and market share and we may have to curtail our capital expenditures. The following factors, among others, could affect our ability to obtain additional financing on favorable terms, or at all:

- our results of operations;
- general economic conditions and conditions in the markets we serve;
- the perception of our business in the capital markets;
- our financial condition; and
- our business prospects.

If we are unable to obtain sufficient capital in the future, we could have to curtail our capital expenditures. Any curtailment of our capital expenditures could result in a reduction in net revenue, reduced quality of our products, increased manufacturing costs for our products, harm to our reputation, or reduced manufacturing efficiencies and could have a material adverse effect on our business, financial condition, and results of operations.

Risks Related to Our Business

We will have difficulty increasing our revenues if we experience delays, difficulties or unanticipated costs in establishing the sales, marketing and distribution capabilities necessary to successfully commercialize our solutions.

We plan to further enhance our sales, marketing and distribution capabilities in the Americas, EMEA, and APAC. It will be expensive and time-consuming for us to develop our global marketing and sales network and thus we intend to further broaden our strategic alliances with domestic and international providers of shipping services and other solutions providers to the life sciences industry to incorporate use of our platform of solutions in their service offerings. We may not be able to provide adequate incentive to our sales force or to establish and maintain favorable distribution and marketing collaborations with others to promote our solutions. In addition, any third party with whom we have established a marketing and distribution relationship may not devote sufficient time to the marketing and sales of our solutions, thereby exposing us to potential expenses in exiting such distribution agreements. We, and any of our alliance partners, must also market our services in compliance with federal, state, local and international laws relating to the provision of incentives and inducements. Violation of these laws can result in substantial penalties. Therefore, if we are unable to successfully motivate and expand our marketing and sales force and further develop our sales and marketing capabilities, or if our alliance partners fail to promote our solutions, we will have difficulty increasing our revenues and the revenue may not off-set the additional expense of expansion.

Our ability to grow and compete in our industry will be hampered if we are unable to retain the continued service of our key professionals or to identify, hire and retain additional qualified professionals.

Our success in implementing our business strategy depends largely on the skills, experience and performance of key members of our executive management team and others in key management positions. The collective efforts of each of these persons working as a team will be critical to us as we continue to develop our technologies, tests and engineering and development and sales programs. As a result of the difficulty in locating qualified new management, the loss or incapacity of existing members of our executive management team could adversely affect our operations. If we were to lose one or more of these key employees, we could experience difficulties in finding qualified successors, competing effectively, developing our technologies and implementing our business strategy. We do not maintain "key person" insurance on any of our employees.

In addition, a critical factor to our business is our ability to attract and retain qualified professionals including key employees and consultants. We are continually at risk of losing current professionals or being unable to hire additional professionals as needed. If we are unable to attract new qualified employees, our ability to grow will be adversely affected. If we are unable to retain current employees or strategic consultants, our financial condition and ability to maintain operations may be adversely affected.

Sustainable future revenue growth is dependent on new solutions and services.

Our future revenue stream depends to a large degree on our ability to bring new solutions and services to market on a timely basis. We must continue to make significant investments in engineering and development in order to continue to develop new solutions and services, enhance existing solutions and services, and achieve market acceptance of such solutions and services. We may incur problems in introducing new solutions and services.

The adoption cycle of our target customers tends to be very lengthy, which may adversely affect our ability to increase revenues quickly.

We offer our solutions to companies in the life sciences industry. These companies operate within a heavily regulated environment and as such, changing vendors and distribution practices typically require a number of steps, which may include the audit of our facilities, review of our procedures, qualifying us as a vendor, and performing test shipments. This process can take several months or longer to complete, involving multiple levels of approval, prior to a company fully adopting our platform of Cryoport Express® Solutions. The logistics management of many companies is decentralized adding to the time need to effect adaptation of our solutions. In addition, any such adoption may be on a gradual basis such that the customer progressively ramps up use of our Cryoport Express® Solutions following adoption. The slow adoption process continues to adversely affect our ability to increase revenues.

Our solutions and services may contain errors or defects, which could result in damage to our reputation, lost revenues, diverted development resources and increased service costs and litigation.

Our solutions and services must meet stringent requirements and we must develop our services and solutions quickly to keep pace with the rapidly changing market. Solutions as sophisticated as ours could contain undetected errors or defects, especially when first introduced or when new equipment or versions of our software are released. If our solutions are not free from errors or defects, we may incur an injury to our reputation, lost revenues, diverted development resources, increased customer service and support costs, and litigation. The costs incurred in correcting any product errors or defects may be substantial and could adversely affect our business, results of operations and financial condition.

If we were sued for product liability, we could face substantial liabilities that exceed our resources.

The marketing, sale and use of our products could lead to the filing of product liability claims were someone to allege that our products failed to perform as designed. A product liability claim could result in substantial damages and be costly and time-consuming for us to defend.

Although we believe that our existing insurance is adequate, our insurers may fail to defend us or our insurance may not fully protect us from the financial impact of defending against product liability claims. Any product liability claim brought against us, with or without merit, could increase our insurance rates or prevent us from securing insurance coverage in the future. Additionally, any product liability lawsuit could damage our reputation, or cause current clinical partners and collaborators to terminate existing agreements and potential clinical partners to seek other partners, cause customers to terminate their relationship with us and potential customers to seek alternative solutions, any of which could adversely impact our results of operations.

If we experience delays in procurement of components used in our Cryoport Express® Solutions manufactured by third parties, then we may experience customer dissatisfaction and our reputation could suffer.

If we fail to procure sufficient components used in our Cryoport Express® Solutions from our third-party manufacturers, we may be unable to deliver our solutions to our customers on a timely basis, which could lead to customer dissatisfaction and could harm our reputation and ability to compete. We currently acquire various component parts for our solutions from various independent manufacturers, some of which are sole sourced. We would likely experience significant delays or cessation in producing some of these components if a labor strike, natural disaster, public health crisis or other supply disruption were to occur at any of our main suppliers. If we are unable to procure a component from one of our manufacturers, we may be required to enter into arrangements with one or more alternative manufacturing companies, which may cause delays in producing components or result in significant increase in costs. To date, we have not experienced any material delay that has adversely impacted our operations. As our business develops it becomes more likely that such problems could arise.

The recent coronavirus (COVID-19) outbreak could adversely affect our financial condition and results of operation.

In December 2019, a novel strain of coronavirus (COVID-19) was reported to have surfaced in Wuhan, China. The impact of the outbreak of COVID-19 on the businesses and the economy in China and the rest of the world is unknown. If the impact is significant, the outbreak could impact our ability to implement logistic centers, develop business, conduct operations, and obtain components used in our solutions in APAC, or any region that is significantly impacted by the outbreak. The extent to which COVID-19 outbreak will impact business and the economy is highly uncertain and cannot be predicted. Accordingly, we cannot predict the extent to which our financial condition and results of operation will be affected.

We expect to base our equipment and inventory purchasing decisions on our forecasts of customers' demand, and if our forecasts are inaccurate, our operating results could be materially harmed.

As our customer base increases, we expect the need to purchase additional equipment and inventory. Our forecasts will be based on multiple assumptions, each of which may cause our estimates to be inaccurate, affecting our ability to provide products to our customers. When demand for our products increases significantly, we may not be able to meet demand on a timely basis, and we may need to expend a significant amount of time working with our customers to allocate limited supply and maintain positive customer relations, or we may incur additional costs in order to rush the manufacture and delivery of additional products. If we underestimate customers' demand, we may forego revenue opportunities, lose market share and damage our customer relationships. Conversely, if we overestimate customer demand, we may purchase more equipment and inventory than we are able to use or sell at any given time or at all. As a result of our failure properly to estimate demand for our products, we could have excess or obsolete equipment and/or inventory, resulting in a decline in the value of our equipment and/or inventory, which would increase our costs of revenues and reduce our liquidity. Our failure to accurately manage our equipment purchases and inventory relative to demand would adversely affect our operating results.

If we experience delays or interruption in shipping due to factors outside of our control, such disruption could lead to customer dissatisfaction and harm our reputation.

We rely on third-party shipment and carrier services to transport our shippers containing biological material. These third-party operations could be subject to natural disasters, adverse weather conditions, other business disruptions, and carrier error, which could cause delays in the delivery of our shippers, which in turn could cause serious harm to the biological material being shipped. As a result, any prolonged delay in shipment, whether due to technical difficulties, power failures, break-ins, destruction or damage to carrier facilities as a result of a natural disaster, fire, or any other reason, could result in damage to the contents of the shipper. If we are unable to deliver our shippers in a timely matter and without damage, this could also harm our operating results and our reputation, even if we are not at fault.

Our solutions and services may expose us to liability in excess of our current insurance coverage.

Our platform of solutions and services involve significant risks of liability, which may substantially exceed the revenues we derive from them. We cannot predict the magnitude of these potential liabilities. We currently maintain general liability insurance, with coverage in the amount of $1 million per occurrence, subject to a $2 million annual limitation, and product liability insurance with a $1 million annual coverage limitation. Claims may be made against us that exceed these limits.

Our liability policy is an "occurrence" based policy. Thus, our policy is complete when we purchased it and following cancellation of the policy it continues to provide coverage for future claims based on conduct that took place during the policy term. Our insurance coverage, however, may not protect us against all liability because our policies typically have various exceptions to the claims covered and also require us to assume some costs of the claim even though a portion of the claim may be covered. In addition, if we expand into new markets, we may not be aware of the need for, or be able to obtain insurance coverage for such activities or, if insurance is obtained, the dollar amount of any liabilities incurred could exceed our insurance coverage. A partially or completely uninsured claim, if successful and of significant magnitude, could have a material adverse effect on our business, financial condition and results of operations.

If we use biological and hazardous materials in a manner that causes injury, we could be liable for damages.

Our customers may ship potentially harmful biological materials in our dewars. We cannot eliminate the risk of accidental contamination or injury to employees or third parties from the use, storage, handling or disposal of these materials. In the event of contamination or injury, we could be held liable for any resulting damages, and any liability could exceed our resources or any applicable insurance coverage we may have. Additionally, we are subject to, on an ongoing basis, federal, state and local laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products. In the event of an accident, we could be held liable for damages.

We operate in a competitive industry and if we cannot compete effectively, we will lose business.

We expect to continue to experience significant and increasing levels of competition in the future. While there are technological and marketing barriers to entry, we cannot guarantee that these barriers will be sufficient to defend our market share against current and future competitors. Our principal competitive considerations in our market include:

- financial resources to allocate to proper marketing and an appropriate sales effort
- acceptance of our solutions model
- acceptance of our solutions including per use fee structures and other charges for services
- keeping up technologically with ongoing development of enhanced features and benefits
- reductions in the delivery costs of competitors' solutions
- the ability to develop and maintain and expand strategic alliances
- establishing our brand name
- our ability to deliver our solutions to our customers when requested
- our timing of introductions of new solutions, and services
- financial resources to support working capital needs and required capital investments in infrastructure

In addition, there may be other companies which are currently developing competitive products and services or which may in the future develop technologies and products that are comparable, superior or less costly than our own. For example, some cryogenic equipment manufacturers with greater resources currently have solutions for storing and transporting cryogenic liquid and gasses and may develop storage solutions that compete with our products. Additionally, some specialty couriers with greater resources currently provide dry ice transportation and may develop other products in the future, both of which compete with our products. A competitor that has greater resources than us may be able to develop and expand their networks and product offerings more quickly, devote greater resources to the marketing and sale of their solutions and adopt more aggressive pricing policies. We may not be able to successfully compete with a competitor that has greater resources and such competition may adversely affect our business.

We may acquire other businesses, products or technologies in order to remain competitive in our market and our business could be adversely affected as a result of any of these future acquisitions.

As part of our business strategy, we may acquire complementary businesses, products or technologies. Any acquisition involves a number of risks, many of which could harm our business, including:

- inability to successfully complete transactions with a suitable acquisition candidate
- diversion of financial and management resources from existing operations;

- the risk that the price we pay or other resources that we devote may exceed the value we realize, or the value we could have realized if we had allocated the purchase price or other resources to another opportunity;
- potential loss of key employees, customers and strategic alliances from either our current business or the target company's business;
- assumption of unanticipated problems or latent liabilities, such as problems with the quality of the acquired products;
- inability to generate sufficient revenue to offset acquisition costs;
- dilutive effect on our stock as a result of any equity-based acquisitions; and
- in the event of international acquisitions, risks associated with accounting and business practices that are different from applicable U.S. practices and requirements.

Acquisitions also frequently result in the recording of goodwill and other intangible assets that are subject to potential impairments, which could harm our financial results. As a result, if we fail to properly evaluate acquisitions, we may not achieve the anticipated benefits of any such acquisitions, and we may incur costs in excess of what we anticipate. The failure to successfully evaluate and execute acquisitions or otherwise adequately address these risks could materially harm our business and financial results.

To finance any acquisitions, we may choose to issue shares of our common stock or convertible debt as consideration, which could dilute the ownership of our stockholders. If the price of our common stock is low or volatile, we may not be able to acquire other companies for stock. In addition, newly-issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we raise additional funds by obtaining loans from third parties, the terms of those financing arrangements may include negative covenants or other restrictions on our business that could impair our operating flexibility and would also require us to incur interest expense. Additional funds may not be available on terms that are favorable to us, or at all.

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. In particular, 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.

If we successfully develop products and/or services, but those products and/or services do not achieve and maintain market acceptance, our business will not be profitable.

The degree of acceptance of our platform of Cryoport Express® Solutions or any future products or services by our current target markets, and any other markets to which we attempt to sell our products and services, and our profitability and growth will depend on a number of factors including, among others:

- our shippers' ability to perform and preserve the integrity of the materials shipped
- relative convenience and ease of use of our shipper and/or Cryoportal®
- availability of alternative products or new technologies that make our solutions offering less desirable or competitive
- pricing and cost effectiveness
- effectiveness of our or our collaborators' sales and marketing strategy
- the adoption cycles of our targeted customers

In addition, even if our products and services achieve market acceptance, we may not be able to maintain that market acceptance over time if new products or services are introduced that are more favorably received than our products and services, are more cost effective, or render our products obsolete. Although we are not aware of any other treatments or methods currently being developed that would directly compete with the methods we employ, there can be no assurance that future developments in technology will not make our technology non-competitive or obsolete, or significantly reduce our operating margins or the demand for our offerings, or otherwise negatively impact our ability to be profitable.

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.

Intellectual Property Risks Associated with Our Business

Our success depends, in part, on our ability to obtain patent protection for our solutions, preserve our trade secrets, and operate without infringing the proprietary rights of others.

Our policy is to seek to protect our proprietary position by, among other methods, filing United States patent applications related to our technology, inventions and improvements that are important to the development of our business. Our patents or patent applications may be challenged, invalidated or circumvented in the future or the rights granted may not provide a competitive advantage. We intend to vigorously protect and defend our intellectual property. Costly and time-consuming litigation brought by us may be necessary to enforce our patents and to protect our trade secrets and know-how, or to determine the enforceability, scope and validity of the proprietary rights of others.

We also rely upon trade secrets, technical know-how and continuing technological innovation to develop and maintain our competitive position. In the past our employees, consultants, advisors and suppliers have not always executed confidentiality agreements and inventions assignment and work for hire agreements in connection with their employment, consulting, or advisory relationships. Consequently, we may not have adequate remedies available to us to protect our intellectual property should one of these parties attempt to use our trade secrets or refuse to assign any rights he or she may have in any intellectual property he or she developed for us. Additionally, our competitors may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our proprietary technology, or we may not be able to meaningfully protect our rights in unpatented proprietary technology.

While we are not aware of any third party that is infringing any of our patents or trademarks nor do we believe that we are infringing on the patents or trademarks of any other person or organization, we cannot guarantee that our current and potential competitors and other third parties have not filed (or in the future will not file) patent applications for (or have not received or in the future will not receive) patents or obtain additional proprietary rights that will prevent, limit or interfere with our ability to make, use or sell our solutions either in the United States or internationally. Additionally, we may face assertions of claims by holders of patents alleging that we are infringing upon their patent rights, which claims may be without merit, but may nonetheless result in our incurring substantial costs of defense.

We are dependent on third parties for the continued development and maintenance of our Cryoportal™ software.

Our proprietary Cryoportal™ is a logistics platform software used by our customers, business partners and client care team to automate the entry of orders, prepare customs documentation and facilitate status and location monitoring of shipped orders while in transit. The continued development of the Cryoportal™ platform is in part contracted to outside software development companies. If these companies become unable or unwilling to continue work on scheduled projects, and an alternative software development company cannot be secured, we may not be able to implement needed enhancements to the system. Failure to proceed with enhancements to the system would adversely affect our ability to generate new business and serve existing customers, resulting in a reduction in revenue.

Our customers could also become the target of litigation relating to the patent and other intellectual property rights of others.

Any litigation relating to the intellectual property rights of others could trigger technical support and indemnification obligations in licenses or customer agreements that we may enter into. These obligations could result in substantial expenses, including the payment by us of costs and damages relating to claims of intellectual property infringement. In addition to the time and expense required for us to provide support or indemnification to our customers, any such litigation could disrupt the businesses of our customers, which in turn could hurt our relationships with such customers and cause the sale of our products to decrease. No assurance can be given that claims for indemnification will not be made, or that if made, such claims would not have a material adverse effect on our business, operating results or financial conditions.

We rely upon certain critical information systems, including our Cryoportal® software platform, for the operation of our business and the failure of any critical information system could adversely impact our reputation and future revenues and we may be required to increase our spending on data and system security.

We rely upon certain critical information systems, including our ***Cryoportal®*** software platform which is used by our customers and business partners to automate the entry of orders, prepare customs documentation and facilitate status and location monitoring of shipped orders while in transit. In addition, the provision of service to our customers and the operation of our networks and systems involve the storage and transmission of significant amounts of proprietary information and sensitive or confidential data, including personal information of customers, employees and others. Our technology infrastructure and critical information systems are subject to damage or interruption from a number of potential sources, including unauthorized intrusions, cyber-attacks, software viruses or other malware, natural disasters, power failures, employee error or malfeasances and other events. Despite our best efforts, no cybersecurity or emergency recovery process is failsafe, and if our safeguards fail or our technology infrastructure or critical information systems are compromised, the safety and efficiency of our operations could be materially harmed, our reputation could suffer, and we could face additional costs, liabilities, costly legal challenges. Additionally, an actual or alleged failure to comply with applicable United States or foreign data protection regulations or other data protection standards may expose us to litigation, fines, sanctions or other penalties. We do not have cyber security insurance and we may incur significant costs in the event of a successful cyber-attack against us. The cost and operational consequences of implementing, maintaining and enhancing further data or system protection measures could increase significantly to overcome increasingly intense, complex and sophisticated global cyber threats.

Regulatory Risks Relating to Our Business

Complying with certain regulations that apply to shipments using our solutions can limit our activities and increase our cost of operations.

Shipments using our solutions and services are subject to various regulations in the various countries in which we operate. For example, shipments using our solutions may be required to comply with the shipping requirements promulgated by the Centers for Disease Control (“CDC”), the Occupational Safety and Health Organization (“OSHA”), the DOT as well as rules established by the IATA and the ICAO. Additionally, our data logger may be subject to regulation and certification by the FDA, the FCC, and the FAA. Department of Transportation (“DOT”) as well as rules established by the IATA and the ICAO. Additionally, our data logger may be subject to regulation and certification by the Food and Drug Administration (“FDA”), Federal Communications Commission (“FCC”), and the Federal Aviation Administration (“FAA”). We will need to ensure that our solutions and services comply with relevant rules and regulations to make our solutions and services marketable, and in some cases compliance is difficult to determine. Significant changes in such regulations could require costly changes to our solutions and services or prevent use of our shippers for an extended period of time while we seek to comply with changed regulations. If we are unable to comply with any of these rules or regulations or fail to obtain any required approvals, our ability to market our solutions and services may be adversely affected. In addition, even if we are able to comply with these rules and regulations, compliance can result in increased costs. In either event, our financial results and condition may be adversely affected. We depend on our business partners and unrelated and frequently unknown third-party agents in foreign countries to act on our behalf to complete the importation process and to make delivery of our shippers to the final user. The failure of these third parties to perform their duties could result in damage to the contents of the shipper resulting in customer dissatisfaction or liability to us, even if we are not at fault.

If we become subject to additional regulatory requirements, our solutions may become subject to increased expenses.

Our solutions are currently not subject to FDA or other regulatory approvals. However, there can be no assurance that our solutions will not be regulated by the FDA, or foreign regulatory authorities, as applicable, in the future. Any such requirements may subject us to additional expenses.

Risks Relating to Ownership of Our Common Stock and Other Securities

Certain of our existing stockholders own and have the right to acquire a substantial number of shares of common stock.

As of March 1, 2020, our directors, executive officers and beneficial owners of 5% or more of our outstanding common stock beneficially owned 11,982,323 shares of common stock (without regard to beneficial ownership limitations contained in certain warrants) assuming their exercise of all outstanding warrants and options that are exercisable within 60 days of March 1, 2020 or approximately 31.8% of our outstanding common stock. As such, the concentration of beneficial ownership of our common stock may have the effect of delaying or preventing a change in control of Cryoport and may adversely affect the voting or other rights of other holders of our common stock.

The sale of substantial shares of our common stock may depress our stock price.

As of March 1, 2020, there were 37,644,867 shares of our common stock outstanding. Substantially all of these shares of common stock are eligible for trading in the public market. The market price of our common stock may decline if our stockholders sell a large number of shares of our common stock in the public market, or the market perceives that such sales may occur. We could also issue up to an additional 10,030,592 shares of our common stock including 900,637 shares to be issued upon the exercise of outstanding warrants and 9,129,955 shares upon exercise of outstanding options or reserved for future issuance under our stock incentive plans.

Our stock price has been and will likely continue to be volatile.

The market price of our common stock has been highly volatile and could fluctuate widely in price in response to various factors, many of which are beyond our control, including, but not limited to:

- technological innovations or new solutions and services by us or our competitors
- additions or departures of key personnel
- sales of our common stock
- our ability to execute our business plan
- our operating results being below expectations
- loss of any strategic relationship
- industry developments
- economic and other external factors
- period-to-period fluctuations in our financial results

In addition, the securities markets have from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of companies. These market fluctuations may also materially and adversely affect the market price of our common stock and warrants.

We are at risk of securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because our stock price and those of other biotechnology and life sciences companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business. We do maintain insurance, but the coverage may not be sufficient and may not be available in all instances.

If equity research analysts do not publish research or reports about our business or if they issue unfavorable commentary or downgrade our common stock and warrants, the price of our common stock and warrants could decline.

The trading market for our common stock and warrants relies in part on the research and reports that equity research analysts publish about us and our business. We do not control these analysts. The price of our common stock and warrants could decline if one or more equity analyst downgrades our stock or if analysts downgrade our stock or issue other unfavorable commentary or cease publishing reports about us or our business.

We have not paid dividends on our common stock in the past and do not expect to pay dividends in the foreseeable future. Any return on investment may be limited to the value of our common stock.

We have never paid cash dividends on our common stock and do not anticipate paying cash dividends in the foreseeable future. The payment of dividends on our common stock will depend on our earnings, financial condition and other business and economic factors affecting us at such time as the Board of Directors may consider the payment of any such dividends. If we do not pay dividends, our common stock may be less valuable because a return on your investment will only occur if the price of our common stock appreciates.

We may need additional capital, and the sale of additional shares of common stock or other equity securities could result in additional dilution to our stockholders.

Our current cash and cash equivalents and anticipated cash flow from operations may be insufficient to meet our cash needs in the long term. We may require additional cash resources to fund our operations and may require additional funds in the future due to changed business conditions or other future developments, including any investments or acquisitions we may decide to pursue. The sale of additional equity securities, or debt securities convertible into equity securities, could result in additional dilution to our stockholders. The incurrence of indebtedness would result in increased debt service obligations and could result in operating and financing covenants that would restrict our operations.

Our Articles of Incorporation allows our Board of Directors to issue up to 2,500,000 shares of "blank check" preferred stock.

Our Articles of Incorporation allows our board of directors to issue up to 2,500,000 shares of "blank check" preferred stock, without action by our stockholders. We have designated 800,000 shares as Class A Preferred Stock and 585,000 shares as Class B Preferred Stock, none of which are currently issued and outstanding. Accordingly, our board of directors will have discretion to issue up to 1,115,000 shares on terms determined by them. Without limiting the foregoing, (i) such shares of preferred stock could have liquidation rights that are senior to the liquidation preference applicable to our common stock and Preferred Stock, (ii) such shares of preferred stock could have voting or conversion rights, which could adversely affect the voting power of the holders of our common stock and Preferred Stock and (iii) the ownership interest of holders of our common stock will be diluted following the issuance of any such shares of preferred stock. In addition, the issuance of such shares of blank check preferred stock could have the effect of discouraging, delaying or preventing a change of control of our Company.

Provisions in our bylaws and Nevada law might discourage, delay or prevent a change of control of our Company or changes in our management and, as a result, may depress the trading price of our common stock.

Provisions of our bylaws and Nevada law may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares of our common stock. The relevant bylaw provisions may also prevent or frustrate attempts by our stockholders to replace or remove our management. These provisions include advance notice requirements for stockholder proposals and nominations, and the ability of our Board of Directors to make, alter or repeal our bylaws.

Absent approval of our Board of Directors, our bylaws may only be amended or repealed by the affirmative vote of the holders of at least a majority of our outstanding shares of capital stock entitled to vote.

In addition, Section 78.438 of the Nevada Revised Statutes prohibits a publicly-held Nevada corporation from engaging in a business combination with an interested stockholder (generally defined as a person which together with its affiliates owns, or within the last three years has owned, 10% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder) unless the business combination is approved in a prescribed manner.

The existence of the foregoing provisions and other potential anti-takeover measures could limit the price that investors might be willing to pay in the future for shares of our common stock. They could also deter potential acquirers of our Company, thereby reducing the likelihood that you could receive a premium for your common stock in an acquisition.

Even though we are not incorporated in California, we may become subject to a number of provisions of the California General Corporation Law.

Section 2115(b) of the California Corporations Code imposes certain requirements of California corporate law on corporations organized outside California that, in general, are doing more than 50% of their business in California and have more than 50% of their outstanding voting securities held of record by persons residing in California. While we are not currently subject to Section 2115(b), we may become subject to it in the future.

The following summarizes some of the principal differences which would apply if we become subject to Section 2115(b).

Under both Nevada and California law, cumulative voting for the election of directors is permitted. However, under Nevada law cumulative voting must be expressly authorized in the Articles of Incorporation and our Amended and Restated Articles of Incorporation do not authorize cumulative voting. If we become subject to Section 2115(b), we may be required to permit cumulative voting if any stockholder properly requests to cumulate his or her votes.

Under Nevada law, directors may be removed by the stockholders only by the vote of two-thirds of the voting power of the issued and outstanding stock entitled to vote. However, California law permits the removal of directors by the vote of only a majority of the outstanding shares entitled to vote. If we become subject to Section 2115(b), the removal of a director may be accomplished by a majority vote, rather than a vote of two-thirds, of the stockholders entitled to vote.

Under California law, the corporation must take certain steps to be allowed to provide for greater indemnification of its officers and directors than is provided in the California Corporation Code. If we become subject to Section 2115(b), our ability to indemnify our officers and directors, to the extent permitted in our Articles of Incorporation, Bylaws and under Nevada law, may be limited by California law.

Nevada law permits distributions to stockholders as long as, after the distribution, (i) the corporation would be able to pay its debts as they become due and (ii) the corporation's total assets are at least equal to its liabilities and preferential dissolution obligations. Under California law, distributions may be made to stockholders as long as the corporation would be able to pay its debts as they mature and either (i) the corporation's retained earnings equal or exceed the amount of the proposed distributions, or (ii) after the distributions, the corporation's tangible assets are at least 125% of its liabilities and the corporation's current assets are at least equal to its current liabilities (or, 125% of its current liabilities if the corporation's average operating income for the two most recently completed fiscal years was less than the average of the interest expense of the corporation for those fiscal years). If we become subject to Section 2115(b), we will have to satisfy more stringent financial requirements to be able to pay dividends to our stockholders. Additionally, stockholders may be liable to the corporation if we pay dividends in violation of California law.

California law permits a corporation to provide "supermajority vote" provisions in its Articles of Incorporation, which would require specific actions to obtain greater than a majority of the votes, but not more than 66 $^{2}/_{3}$ percent. Nevada law does not permit supermajority vote provisions. If we become subject to Section 2115(b), it is possible that our stockholders would vote to amend our Articles of Incorporation and require a supermajority vote for us to take specific actions.

Under California law, in a disposition of substantially of all the corporation's assets, if the acquiring party is in control of or under common control with the disposing corporation, the principal terms of the sale must be approved by 90 percent of the stockholders. Although Nevada law does contain certain rules governing interested stockholder business combinations, it does not require similar stockholder approval. If we become subject to Section 2115(b), we may have to obtain the vote of a greater percentage of the stockholders to approve a sale of our assets to a party that is in control of, or under common control with, us.

California law places certain additional approval rights in connection with a merger if all of the shares of each class or series of a corporation are not treated equally or if the surviving or parent party to a merger represents more than 50 percent of the voting power of the other corporation prior to the merger. Nevada law does not require such approval. If we become subject to Section 2115(b), we may have to obtain the vote of a greater percentage of the stockholders to approve a merger that treats shares of a class or series differently or where a surviving or parent party to the merger represents more than 50% of the voting power of the other corporation prior to the merger.

California law requires the vote of each class to approve a reorganization or a conversion of a corporation into another entity. Nevada law does not require a separate vote for each class. If we become subject to Section 2115(b), we may have to obtain the approval of each class if we desire to reorganize or convert into another type of entity.

California law provides greater dissenters' rights to stockholders than Nevada law. If we become subject to Section 2115(b), more stockholders may be entitled to dissenters' rights, which may limit our ability to merge with another entity or reorganize.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results, and current and potential stockholders may lose confidence in our financial reporting.

We are required by the SEC to establish and maintain adequate internal control over financial reporting that provides reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles. We are likewise required, on a quarterly basis, to evaluate the effectiveness of our internal controls and to disclose any changes and material weaknesses in those internal controls. In addition, our independent registered public accounting firm is required to report on whether it believes we maintained, in all material respects, effective internal control over financial reporting as of the end of the year. In future years, if we fail to timely complete this assessment, or if our independent registered public accounting firm cannot timely attest, there may be a loss of public confidence in our internal controls, the market price of our stock could decline, and we could be subject to regulatory sanctions or investigations by NASDAQ, the SEC or other regulatory authorities, which would require additional financial and management resources. In addition, any failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to timely meet our regulatory reporting obligations.

As described in Item 9A of this Form 10-K, no material weaknesses were identified and we determined that our internal control over financial reporting was effective as of December 31, 2019.

However, any failure to maintain such internal controls, to timely complete our evaluation of our internal controls, assessment, or to obtain our independent registered public accounting firm's timely attestation on the effectiveness of our internal controls in the future could adversely impact our ability to report our financial results on a timely and accurate basis. If our financial statements are not accurate, investors may not have a complete understanding of our operations. Likewise, if our financial statements are not filed on a timely basis as required by the SEC and NASDAQ, we could face severe consequences from those authorities. In either case, there could result a material adverse effect on our business. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our stock.

Our publicly-filed SEC reports are reviewed by the SEC from time to time and any significant changes required as a result of any such review may result in material liability to us and have a material adverse impact on the trading price of our common stock.

The reports of publicly-traded companies are subject to review by the SEC from time to time for the purpose of assisting companies in complying with applicable disclosure requirements and to enhance the overall effectiveness of companies' public filings, and reviews of such reports are now required at least every three years under the Sarbanes-Oxley Act of 2002. SEC reviews may be initiated at any time, and we could be required to modify or reformulate information contained in prior filings as a result of an SEC review. Any modification or reformulation of information contained in such reports could be significant and could result in material liability to us and have a material adverse impact on the trading price of our common stock.

The requirements of being a U.S. public company may strain our resources and divert management's attention.

As a U.S. public company, we are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, certain listing requirements, and other applicable securities rules and regulations. Compliance with these rules and regulations will increase our legal and financial compliance costs, make some activities more difficult, time-consuming, or costly, and increase demand on our systems and resources. The Exchange Act requires, among other things, that we file annual and current reports with respect to our business and operating results. As a result of disclosure of information in this prospectus and in filings required of a public company, our business and financial condition is more visible, which we believe may result in threatened or actual litigation, including by competitors and other third parties. If such claims are successful, our business and operating results could be harmed, and even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert resources of our management and harm our business and operating results.

We are a "smaller reporting company," and we cannot be certain if the reduced disclosure requirements applicable to smaller reporting companies will make our common stock less attractive to investors.

We are a "smaller reporting company," as defined in Rule 12b-2 of the Exchange Act. As a smaller reporting company, we intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not smaller reporting companies. These exemptions include reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We may continue to rely on such exemptions for so long as we remain a smaller reporting company under applicable SEC rules and regulations. Accordingly, we cannot predict if investors will find our common stock less attractive because we rely on these exemptions. If some investors find our common stock less attractive as a result of our reduced disclosures, there may be less active trading in our common stock and our stock price may be more volatile.

ITEM 1B. Unresolved Staff Comments

Not applicable.

ITEM 2. Properties

We do not own real property. We lease a 4,190 square foot corporate facility in Brentwood, Tennessee where our principal executive offices are located. We also lease directly or through a subsidiary 27,600 square feet of corporate, research and development, and logistics facilities in Irvine, California; 8,100 square feet of logistics facilities in Livingston, New Jersey; 7,600 square feet of logistics facilities in Hoofddorp, the Netherlands; 21,476 square feet of corporate and biostorage facilities in Houston, Texas. In addition, we signed lease agreements for additional space within the same business park as our current biostorage facilities in Houston, Texas, totaling 19,572 square feet. This space will be built out during 2020 to establish our first Global Supply Chain Center and expand Cryogene's biostorage footprint.

In addition to the global logistics services provided through our global logistics centers in Irvine, California, Livingston, New Jersey and Hoofddorp, the Netherlands we have contracted with a third party to run our logistics center covering APAC, located in Singapore. These global logistics centers are used for our Global Logistics Solutions segment and provide warehousing, shipping, receiving, refurbishing and recycling services for our shipping containers as well as other services offered as part of our Cryoport Express® Logistics Solutions and enable us to provide our services on a global basis.

Global Bioservices are currently primarily provided through our biostorage facilities in Houston, Texas.

We believe that these facilities are adequate, suitable and of sufficient capacity to support our immediate needs.

ITEM 3. Legal Proceedings

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

ITEM 4. Mine Safety Disclosures

Not applicable

PART II

ITEM 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Common Stock

As of March 1, 2020 there were 37,644,867 shares of common stock outstanding and 198 stockholders of record. Because many shares of our common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these stockholders of record.

Market Information

The Company's common stock is currently listed on the NASDAQ Capital Market and is traded under the symbol "CYRX."

Dividends

No dividends on common stock have been declared or paid by the Company. The Company intends to employ all available funds for the development of its business and, accordingly, does not intend to pay any cash dividends in the foreseeable future.

Recent Sale of Unregistered Securities

None.

Issuer Purchases of Equity Securities

The following table provides information regarding repurchases of the Company's common stock during the quarter ended December 31, 2019:

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs [1]	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
October 1, 2019 through October 31, 2019	—	$ —	—	$ 15,000,000
November 1, 2019 through November 30, 2019	—	$ —	—	$ 15,000,000
December 1, 2019 through December 31, 2019	—	$ —	—	$ 15,000,000
Total	—	$ —	—	

(1) On October 9, 2019, the Company announced that its board of directors authorized a share repurchase program to purchase up to $15,000,000 of the Company's common stock. Repurchases may be made from time to time on the open market or otherwise, in such quantities, at such prices, and in such manner as determined by management at its discretion and will depend on a number of factors, including the market price of Company's common stock, general market and economic conditions, and applicable legal requirements. The repurchase program will expire on December 31, 2020 and may be extended, suspended, modified or discontinued at any time.

ITEM 6. Selected Financial Data

The following selected financial data as of and for the year ended March 31, 2016, as of and for the nine months ended December 31, 2016 and as of and for the years ended December 31, 2017, 2018 and 2019 have been derived from audited consolidated financial statements of the Company. On September 21, 2016, the Company changed its fiscal year from a fiscal year ending March 31 of each year to a fiscal year ending December 31 of each year, effective as of December 31, 2016. This change resulted in a transition period from April 1, 2016 through December 31, 2016. You should read the following financial information together with the information under "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this Form 10-K. The information set forth below is not necessarily indicative of our future financial condition or results of operations.

Statement of Operations Data:

(Amounts in thousands, except per share data)

	Year Ended December 31,			Nine Months Ended December 31,	Year Ended March 31,
	2019	2018	2017	2016	2016
Revenues	$ 33,942	$ 19,626	$ 11,954	$ 6,123	$ 5,882
Cost of revenues	16,590	9,386	5,988	3,603	3,992
Gross margin	17,352	10,240	5,966	2,520	1,890
General and administrative	17,465	9,799	7,421	4,635	5,925
Sales and marketing	13,821	7,247	5,232	3,573	4,156
Engineering and development	3,741	1,840	1,206	454	550
Loss from operations	(17,675)	(8,646)	(7,893)	(6,142)	(8,741)
Interest expense	(1,367)	(69)	(15)	(58)	(1,066)
Warrant inducement and repricing expense	—	(899)	—	(4,195)	—
Other income (expense), net	772	78	14	(2)	(9)
Loss before provision for income taxes	(18,270)	(9,536)	(7,894)	(10,397)	(9,816)
Provision for income taxes	(62)	(20)	(5)	(6)	(4)
Net loss	(18,332)	(9,556)	(7,899)	(10,403)	(9,820)
Preferred stock beneficial conversion charge	—	—	—	—	(4,474)
Undeclared cumulative preferred dividends	—	—	—	—	(763)
Net loss attributable to common stockholders	$ (18,332)	$ (9,556)	$ (7,899)	$ (10,403)	$ (15,057)
Net loss per share attributable to common stockholders – basic and diluted	$ (0.55)	$ (0.34)	$ (0.34)	$ (0.68)	$ (2.05)

Balance Sheet Data:	December 31,				March 31,
(Amounts in thousands)	2019	2018	2017	2016	2016
Cash and cash equivalents	$ 47,235	$ 37,327	$ 15,042	$ 4,525	$ 2,793
Working capital	97,504	48,713	15,097	3,865	1,958
Total assets	135,873	56,620	20,264	8,112	5,824
Convertible note, net	—	14,712	—	—	—
Other long-term obligations, less current portion	4,131	301	175	200	554
Total stockholders' equity	$ 126,281	$ 38,547	$ 17,887	$ 5,680	$ 3,096

ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of our operations should be read in conjunction with our consolidated financial statements and related notes included elsewhere in this Form 10-K. Our actual results could differ materially from those contained in forward-looking statements due to a number of factors. See "Forward-Looking Statements" in this Form 10-K.

General Overview

Cryoport is a life sciences services company that is an integral part of the supply chain supporting the biopharma, reproductive medicine and animal health markets. We are redefining logistics for the life sciences industry by providing a unique platform of critical solutions including highly differentiated temperature-controlled logistics and biostorage services. Through our products, services and unparalleled expertise, we enable our clients to ship, store and deliver cellular-based materials and drug products as well as other life sciences commodities in a precise, defined temperature-controlled state. We provide a platform of fully integrated, temperature-controlled solutions to the life sciences industry through a seamless combination of proprietary packaging, information technology, and specialized cold-chain logistics knowhow. Our solutions integrate "chain-of-condition," "chain-of-custody", and Chain of Compliance™ information into a single data stream. Our competencies and capabilities are used to develop solutions that are customized to our client's requirements. We provide comprehensive and reliable technology-centric alternatives to traditional cold chain distribution/logistics solutions. Our platform of services are utilized for temperature controlled shipping and storage in the life sciences industry; e.g., personalized medicine, cell therapies, stem cells, cell lines, vaccines, diagnostic materials, semen, eggs, embryos, cord blood, bio-pharmaceuticals, infectious substances, and other commodities that require continuous exposure to certain ranges of precision controlled temperatures. As part of our services, our technologies provide the ability for us, or our client, to monitor location and other specified critical variables for each shipment in real time, which is recorded and archived for each shipment for scientific, quality assurance and regulatory purposes. This information enables an audit trail that can verify the '*in shipment*' condition of the life sciences commodity, material, product or therapy being shipped. Included in our tailored solutions, Cryoport's technology is designed to support clinical trials, Biologics License Applications (BLA), Investigational New Drug Applications and New Drug Application (NDA) with the United States Food and Drug Administration (FDA) as well as commercial distribution.

See the "Business" section in Part I, Item 1 of this Form 10-K for additional information.

Segment Reporting

We currently operate in two reportable segments: Global Logistics Solutions and Global Bioservices. The Global Logistics Solutions segment provides a platform of temperature-controlled 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, 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.

Results of Operations

Results of Operations for Year Ended December 31, 2019 Compared to the Year Ended December 31, 2018

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

	Year Ended December 31,			
	2019	2018	$ Change	% Change
	($ in 000's)			
Revenues	$ 33,942	$ 19,626	$ 14,316	72.9%
Cost of revenues	(16,590)	(9,386)	(7,204)	76.8%
Gross margin	17,352	10,240	7,112	69.4%
General and administrative expenses	(17,465)	(9,799)	(7,666)	78.2%
Sales and marketing expenses	(13,821)	(7,246)	(6,575)	90.7%
Engineering and development expenses	(3,741)	(1,840)	(1,901)	103.2%
Interest expense	(1,367)	(69)	(1,298)	1,873.8%
Warrant inducement and repricing expense	—	(899)	899	(100)%
Other income	772	77	695	894.5%
Provision for income taxes	(62)	(20)	(42)	208.6%
Net loss	$ (18,332)	$ (9,556)	$ (8,776)	91.8%

Total revenues

	Year Ended December 31,			
	2019	2018	$ Change	% Change
	($ in 000's)			
Global Logistics Solutions:				
Biopharmaceutical	$ 27,002	$ 16,477	$ 10,525	63.9%
Reproductive medicine	2,914	2,173	741	34.1%
Animal health	997	976	21	2.1%
Total Global Logistics Solutions	30,913	19,626	11,287	57.5%
Global Bioservices	3,029	—	3,029	100%
Total revenues	$ 33,942	$ 19,626	$ 14,316	72.9%

Revenues. Revenues increased $14.3 million, or 72.9%, to $33.9 million for year ended December 31, 2019, as compared to $19.6 million for the year ended December 31, 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. In our Global Logistics Solutions segment, biopharmaceutical revenue increased $10.5 million or 63.9%, to $27.0 million for the year ended December 31, 2019, as compared to $16.5 million for the year ended December 31, 2018. Commercial revenue related to the CAR T-cell therapies, KYMRIAH® and YESCARTA®, increased $6.2 million, or 295%, to $8.3 million for year ended December 31, 2019, as compared to $2.1 million for the year ended December 31, 2018. During the year ended December 31, 2019, we added approximately 101 new biopharma clients and added 79 clinical trials, net of completed or terminated trials, of which 44 trials were in the Americas, 21 in EMEA and 14 in APAC. This 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 34.1% for the year ended December 31, 2019, as compared to the same period in 2018. This increase was driven by a 31.3% increase in revenues in the U.S. market through continued success of our CryoStork®-branded offering and a 43.5% increase in revenues in the international markets, which was primarily a result of our marketing initiatives and growing brand recognition. Our revenue from animal health increased 2.1% for the year ended December 31, 2019, as compared to the same period in 2018. In our Global Bioservices segment, revenue was $3.0 million for the year ended December 31, 2019, which reflects the acquisition of the Cryogene business in May 2019. Prior to this acquisition, the Company had a single reportable segment, Global Logistics Solutions.

Gross margin and cost of revenues. Gross margin for the year ended December 31, 2019 was 51.1% of revenues, as compared to 52.2% of revenues for the year ended December 31, 2018. The decrease in gross margin is primarily due to an increase in stock-based compensation of $383,800 related to the accelerated vesting for certain stock option awards as a result of meeting defined financial targets and 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 is 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 $7.2 million, or 76.8%, to $16.6 million for the year ended December 31, 2019, as compared to $9.4 million in the same period in 2018. The increase in cost of revenues was primarily due to higher freight charges from the increased volume of shipments, an increase in operating costs for our global logistics centers and $383,800 of accelerated vesting for certain stock option awards as a result of meeting defined financial targets.

General and administrative expenses. General and administrative expenses increased $7.7 million for the year ended December 31, 2019, or 78.2%, as compared to the same period in 2018. This increase is primarily due to an increase in stock-based compensation of $5.7 million of which $5.0 million relates to the accelerated vesting for certain stock option awards as a result of meeting defined financial targets, an increase in wages and associated employee costs of $946,900, of which $397,200 relates to Cryogene, an increase in facility costs and other overhead cost allocations of $835,000, an increase in public company related expenses (including legal, audit and internal control audit fees) of $319,900, an increase in insurance premiums of $193,300, an increase of $81,300 for legal settlements and an increase of $69,400 in travel and lodging expenses. These increases were partially offset by a decrease of $554,100 for start-up costs, which were incurred in 2018 for the new logistics centers in Livingston, New Jersey and Hoofddorp, the Netherlands.

Sales and marketing expenses. Sales and marketing expenses, which includes logistics operations, increased $6.6 million, or 90.7%, as compared to the same period in 2018. This increase is due to an increase in stock-based compensation of $3.4 million which relates to the accelerated vesting for certain stock option awards as a result of meeting defined financial targets, an increase in wages and associated employee costs of $1.9 million which includes recruiting and relocation fees of $111,000 for the expansion of our domestic logistics force, an increase in facility and other overhead allocations of $776,200, an increase in marketing and advertising promotions of $101,000, and an increase in travel and lodging expense of $58,100.

Engineering and development expenses. Engineering and development expenses increased $1.9 million, or 103.2%, for year ended December 31, 2019, as compared to the same period in 2018. This increase is primarily due to an increase in stock-based compensation of $873,000 relating to the accelerated vesting for certain stock option awards as a result of meeting defined financial targets, an increase of $571,600 in consulting expenses directed and further enhancing our logistics solutions, an increase of $200,200 in wages and associated employee costs to add software development and engineering resources, an increase in facility and other overhead cost allocations of $199,700, and an increase in prototype expenses of $156,900. 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 was $899,400 for the year ended December 31, 2018 which was due to the repricing of certain warrants for the tender offer that was completed in February 2018.

Interest expense. Interest expense increased $1.3 million for the year ended December 31, 2019, as compared to the prior year as a result of the interest expense on the convertible note issued in December 2018.

Other income, net. The increase in other income, net for the year ended December 31, 2019 is primarily due to interest income on our cash and cash equivalents and short-term investments.

Liquidity and Capital Resources

As of December 31, 2019, the Company had cash and cash equivalents of $47.2 million, short-term investments of $47.1 million and working capital of $97.5 million. Historically, we have financed our operations primarily through sales of equity securities and debt instruments. We believe that our pre-existing cash and cash equivalents and short-term investments, together with interest thereon, will be sufficient to fund our operations, including capital expenditures, for at least the next 12 months.

For the year ended December 31, 2019, we used $1.4 million of cash for operations primarily as a result of the net loss of $18.3 million adjusted for non-cash expenses of $20.0 million comprised of $9.6 million of accelerated stock-based compensation, $7.0 million of routine stock-based compensation expense as well as amortization of debt discounts 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 $3.6 million, an increase in prepaids and other current assets of $344,600 and an increase of $253,400 in inventory which was partially offset by an increase in accounts payable and other accrued expenses of $730,200 and an increase in accrued compensation and related expenses of $641,200.

Net cash used in investing activities of $62.9 million during the year ended December 31, 2019 was primarily due to the $20.3 million acquisition of the Cryogene business on May 14, 2019, $43.2 million purchase of short-term investments, and $5.3 million for the capitalization of software development costs for our Cryoportal™ Logistics Management Platform, and additional purchases of Cryoport Express® Shippers, Smart Pak™ Condition Monitoring Systems, freezers and computer equipment, partially offset by the maturity of short-term investments of $6.0 million.

Net cash provided by financing activities of $74.2 million during the year ended December 31, 2019, was primarily as a result of $68.8 million in net proceeds from our June 2019 public offering of common stock and $5.4 million in proceeds from the exercise of stock options and warrants.

The Company's management recognizes that the Company may need to obtain additional capital to fund its operations 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. See "— Risks Related to Our Financial Condition — We may need to raise additional capital in the future, and if we are unable to secure adequate funds on terms acceptable to us, we could be unable to execute our business plan" in the "Risk Factors" section in Part I, Item 1A of this Form 10-K for additional information.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements within the meaning of Item 303(a)(4) of Regulation S-K.

Impact of Inflation

From time to time, Cryoport experiences price increases from third party manufacturers and these increases cannot always be passed on to Cryoport's customers. While these price increases have not had a material impact on Cryoport's historical operations or profitability in the past, they could affect revenues in the future.

Critical Accounting Policies and Estimates

Our discussion and analysis of our consolidated financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in conformity with accounting principles generally accepted in the U.S., or U.S. GAAP. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities reported in our consolidated financial statements. The estimation process requires assumptions to be made about future events and conditions and is consequently inherently subjective and uncertain. Actual results could differ materially from our estimates.

The SEC defines critical accounting policies as those that are, in management's view, most important to the portrayal of our financial condition and results of operations and most demanding of our judgment. We consider the following policies to be critical to an understanding of our consolidated financial statements and the uncertainties associated with the complex judgments made by us that could impact our results of operations, financial position and cash flows: Revenue Recognition, Goodwill, Intangible Assets, Capitalized Software, Leases, and Stock-based Compensation. See Note 2: "*Summary of Significant Accounting Policies*" of our accompanying consolidated financial statements for a description of our critical accounting policies and estimates.

New Accounting Pronouncements

See Note 2: "*Summary of Significant Accounting Policies*" of our accompanying consolidated financial statements for a description of recent accounting pronouncements that may have a significant impact on our financial reporting and our expectations of their impact on our results of operations and financial condition.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Not applicable

Item 8. Financial Statements and Supplementary Data

Our annual consolidated financial statements are included in Part IV, Item 15 of this Form 10-K and are incorporated into this Item 8 by reference.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

The term "disclosure controls and procedures" (as defined in Rule 13a-15(e) under the Exchange Act) refers to the controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we have conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2019. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2019.

(b) Management's Report on Internal Control Over Financial Reporting.

Management's Report on Internal Control Over Financial Reporting which appears on the following page is incorporated herein by reference.

As permitted by SEC guidance for newly acquired businesses, management's assessment of our internal controls over financial reporting did not include an assessment of the internal controls over financial reporting of Cryogene, which was acquired on May 14, 2019. Cryogene accounted for approximately 18.6% of our total assets as of December 31, 2019 and 8.9% of our total revenues for the fiscal year ended on December 31, 2019.

Ernst & Young LLP, an independent registered public accounting firm, has audited the effectiveness of our internal control over financial reporting as of December 31, 2019, as stated in its attestation report included in Item 8. "Financial Statements and Supplementary Data" included elsewhere in this Annual Report on Form 10-K.

(c) Changes In Internal Control Over Financial Reporting

During the quarter ended December 31, 2019, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

CRYOPORT, INC.
MANAGEMENT'S REPORT ON
INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of the Company is responsible for establishing and maintaining effective internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) and for the assessment of the effectiveness of internal control over financial reporting. The Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

The Company's internal control over financial reporting is supported by written policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the Company's assets;

- provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures of the Company are being made only in accordance with authorizations of the Company's management and directors; and

- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In connection with the preparation of the Company's annual consolidated financial statements, management of the Company has undertaken an assessment of the effectiveness of the Company's internal control over financial reporting based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Management's assessment included an evaluation of the design of the Company's internal control over financial reporting and testing of the operational effectiveness of the Company's internal control over financial reporting.

Based on this assessment, management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2019. Management's assessment excluded Cryogene, which was acquired on May 14, 2019, and accounted for 18.6% and 16.5% of total assets and net assets, respectively, as of December 31, 2019 and 8.9% and (2.4%)of total revenues and net loss, respectively, in our consolidated financial statements for the fiscal year ended on December 31, 2019.

By: /s/ JERRELL W. SHELTON
Jerrell W. Shelton,
Chief Executive Officer and Director

By: /s/ ROBERT STEFANOVICH
Robert Stefanovich,
Chief Financial Officer

March 10, 2020

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Executive Officers

Information regarding executive officers is included in Part I, Item 1 of this Form 10-K under the caption "Information about our Executive Officers."

Board of Directors

The following table sets for the name and age of each director, the year first elected as a director and the position(s) held with the Company:

Name	Age	Position	Date Elected
Jerrell W. Shelton	74	Chairman, President and Chief Executive Officer	2012
Richard J. Berman	77	Lead Director	2015
Daniel M. Hancock	69	Director	2019
Robert Hariri, M.D., Ph.D.	61	Director	2015
Ramkumar Mandalam, Ph.D.	55	Director	2014
Edward J. Zecchini	59	Director	2013

Jerrell W. Shelton. Mr. Shelton became a member of our board of directors in October 2012 and was appointed President and Chief Executive Officer of the Company in November 2012. He was appointed Chairman of the Board in October 2015. He served on the Board of Directors and standing committees of Solera Holdings, Inc. from April 2007 through November 2011. From June 2004 to May 2006, Mr. Shelton was the Chairman and CEO of Wellness, Inc., a provider of advanced, integrated hospital and clinical environments. Prior to that, he served as Visiting Executive to IBM Research and Head of IBM's WebFountain. From October 1998 to October 1999, Mr. Shelton was Chairman, President and CEO of NDC Holdings II, Inc. Between October 1996 and July 1998, he was President and CEO of Continental Graphics Holdings, Inc. And from October 1991 to July 1996, Mr. Shelton served as President and CEO of Thomson Business Information Group. Mr. Shelton has a B.S. in Business Administration from the University of Tennessee and an M.B.A. from Harvard University. Mr. Shelton's extensive leadership, management, strategic planning and financial expertise through his various leadership and directorship roles in public, private and global companies, makes him well-qualified to serve as a member of the board of directors.

Richard J. Berman. Mr. Berman became a member of our board of directors in January 2015 and serves as Chairman of the Audit Committee and member of the Compensation Committee and Nomination and Governance Committee of our board of directors. Mr. Berman's business career spans over 35 years of venture capital, senior management and merger & acquisitions experience. Mr. Berman has served as a director and/or officer of over a dozen public and private companies. From 2006 to 2011, he was Chairman of National Investment Managers, a company with $12 billion in pension administration assets. Mr. Berman is a director of four publicly traded healthcare companies: Advaxis, Inc., Cryoport, Inc., BioVie Inc., and BriaCell Therapeutics, Inc. From 2002 to 2010, he was a director of Nexmed Inc. where he also served as Chairman/CEO in 2008 and 2009 (formerly Apricus Biosciences, Inc.); From 1998 to 2000, he was employed by Internet Commerce Corporation (now Easylink Services) as Chairman and CEO, and was a director from 1998 to 2012. Previously, Mr. Berman worked at Goldman Sachs; was Senior Vice President of Bankers Trust Company, where he started the M&A and Leveraged Buyout Departments; created the largest battery company in the world in the 1980's by merging Prestolite, General Battery and Exide to form Exide Technologies (XIDE); helped to create what is now Soho (NYC) by developing five buildings; and advised on over $4 billion of M&A transactions. He is a past Director of the Stern School of Business of NYU where he obtained his BS and MBA. He also has U.S. and foreign law degrees from Boston College and The Hague Academy of International Law, respectively. Mr. Berman's financial and business expertise, including his background in biotechnology, international management and banking, and his extensive experience as a director in the public company context makes him well-qualified to serve as a member of the board of directors.

Daniel M. Hancock. Mr. Hancock became a member of our board of directors in January 2019 and serves as member of the Audit Committee and Scientific and Technology Committee. Mr. Hancock is currently President of DMH Strategic Consulting LLC. He retired from General Motors ("GM") in 2011, after 43 years of service in GM's powertrain engineering and general management functions. His last position with GM was Vice President, Global Strategic Product Alliances. During this period, he served as Chairman of GM's DMAX and VM Motori diesel engine joint ventures with Isuzu and Fiat, respectively. Mr. Hancock's previous appointments at GM included: Vice President, Global Powertrain Engineering; CEO, Fiat-GM Powertrain; and President, Allison Transmission Division. Mr. Hancock is a director of Westport Fuel Systems (NASDAQ WPRT), a Vancouver, B.C. based global supplier of clean gaseous fuel parts, and systems for the transportation industry. He is also serving as chairman of the board of SuperTurbo Technologies, Inc., a Loveland, CO based privately-held developer of advanced turbo compounding systems for engines and director of Achates Power, Inc., a San Diego, CA headquartered privately-held developer of innovative opposed-piston, two-stroke diesel engines. In addition, Mr. Hancock serves in an advisory capacity to several global suppliers to the automotive and commercial vehicle industries. He was President of SAE International in 2014 and is a member of the National Academy of Engineering. He received a master's degree in mechanical engineering from Massachusetts Institute of Technology (MIT) and a bachelor's degree also in mechanical engineering from General Motors Institute (now Kettering University), Michigan. We believe Mr. Hancock's global business experience, strong business acumen, and extensive technical expertise qualifies him well to serve as a member of the board of directors.

Robert Hariri, M.D., Ph.D. Dr. Hariri, M.D., Ph.D. became a member of our board of directors in September 2015 and serves as Chairman of the Scientific and Technology Committee and member of the Audit Committee and Nomination and Governance Committee of our board of directors. Dr. Hariri is a visionary surgeon, scientist, aviator and entrepreneur and serves the Founder, Chairman and CEO of Celularity, one of the world's largest human cellular therapeutics companies. Previously, he served as the CEO of the Cellular Therapeutics Division of Celgene Corporation. Prior to joining Celgene Cellular Therapeutics as president in 2002, Dr. Hariri was founder, chairman and chief scientific officer at Anthrogenesis Corporation/LIFEBANK, Inc., a privately held biomedical technology and service corporation involved in the area of human stem cell therapeutics, which was acquired by Celgene in 2002. Dr. Hariri is also a co-founder of Human Longevity, Inc., a genomics and health intelligence company. He has served on numerous private and public Boards of Directors including Bionik Laboratories Corp (OTCQX: BNKL), Myos Corporation (Nasdaq: MYOS), Provista Diagnostics and is a member of the Board of Visitors of the Columbia University School of Engineering &Applied Sciences and the Science &Technology Council of the College of Physicians and Surgeons; as well as a member of the Scientific Advisory Board for the Archon X PRIZE for Genomics, which is awarded by the X Prize Foundation. Dr. Hariri is also a Trustee of the Liberty Science Center and has been appointed Commissioner of Cancer Research by New Jersey Governor, Chris Christie. Dr. Hariri was recipient of the Thomas Alva Edison Award in 2007 and 2011, the Pontifical Medal for Innovation and has received numerous other honors for his many contributions to biomedicine and aviation. He has pioneered the use of stem cells to treat a range of life-threatening diseases and has over 170 issued and pending patents, has authored over 100 published chapters, articles and abstracts and is most recognized for his discovery of pluripotent stem cells from the placenta as a member of the team which discovered TNF (tumor necrosis factor). A jet-rated commercial pilot with thousands of hours of flight time in over 60 different military and civilian aircraft, Dr. Hariri is a founder of the Rocket Racing League, an extreme aerospace corporation and Jet-A Aviation, a heavy-jet charter airline. Dr. Hariri received his undergraduate training at Columbia College and Columbia University School of Engineering and Applied Sciences and was awarded his M.D. and Ph.D. degrees from Cornell University Medical College. Dr. Hariri received his surgical training at The New York Hospital-Cornell Medical Center where he also directed the Aitken Neurosurgery Laboratory and the Center for Trauma Research. Dr. Hariri's training as a scientist, his knowledge and experience with respect to the biomedical and pharmaceutical industries and his extensive research and experience makes him well-qualified to serve as a member of the board of directors.

Ramkumar Mandalam, Ph.D. Dr. Mandalam became a member of our board of directors in June 2014 and serves as Chairman of the Governance and Nomination Committee and member of the Compensation Committee our board of directors. Dr. Mandalam is the CEO, President and member of the board of directors of Cellerant Therapeutics, Inc., a clinical stage biotechnology company developing novel cell-based and antibody therapies for cancer treatment and blood-related disorders. Under his leadership, Cellerant has developed a pipeline of candidates for treatment of heamatological malignancies and has rapidly expanded from an early-stage to an advanced clinical-stage company. Prior to joining Cellerant in 2005, he was the Executive Director of Product Development at Geron Corporation, a biopharmaceutical company where he managed the development and manufacturing of cell-based therapies for treatment of degenerative diseases and cancer. From 1994 to 2000, he held various positions in research and development at Aastrom Biosciences, where he was responsible for programs involving ex vivo expansion of human bone marrow stem cells and dendritic cells. Dr. Mandalam serves on the Boards of Cryoport Inc. and Stempeutics Research Pvt. Ltd.. Dr. Mandalam received his Ph.D. in Chemical Engineering from the University of Michigan, Ann Arbor, Michigan. Dr. Mandalam is the author or co-author of several publications, patent applications, and abstracts. Dr. Mandalam's training as a scientist, extensive background in biotechnology and management expertise and makes him well-qualified to serve as a member of the board of directors.

Edward J. Zecchini. Mr. Zecchini became a member of our board of directors in September 2013 and serves as Chairman of the Compensation Committee and member of the Audit Committee and Scientific and Technology Committee. Mr. Zecchini currently serves as Managing Member of IT Analytics LLC. Mr. Zecchini is a director of the publicly traded healthcare company Catasys, Inc. Prior to that, Mr. Zecchini served as Chief Information Officer at Remedy Partners, Inc. from April 2014 to October 2019, Executive Vice President and Chief Technology Officer at Sandata Technologies, LLC, from May 2010 to March 2014. Earlier in his career he held senior level positions at HealthMarkets, Inc., Thomson Healthcare and SportsTicker, Inc. Mr. Zecchini has over thirty years of experience in the healthcare and information technology industries. Mr. Zecchini holds a Bachelor of Arts degree from the State University of New York at Oswego. Mr. Zecchini's business expertise, including his background and extensive experience in information technology and management makes him well-qualified to serve as a member of the board of directors.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires the Company's directors and executive officers, and persons who own more than 10% of a registered class of the Company's equity securities, to file with the SEC reports of beneficial ownership and reports of changes in beneficial ownership in the Company's securities.

Based solely upon a review of Forms 3, 4 and 5, and amendments thereto, filed electronically with the SEC during the year ended December 31, 2019, the Company believes that all Section 16(a) filings applicable to its directors, officers, and 10% stockholders were filed on a timely basis during the year ended December 31, 2019 , except for one Form 4 that was filed by Robert Stefanovich..

Committees of the Board of Directors

Our board of directors has established an Audit Committee, a Compensation Committee, Nomination and Governance Committee and a Science and Technology Committee. Charters for each of these committees is available on the Company's website at www.cryoport.com on the "Investor Relations: Corporate Governance" page under the heading "About Us." Information on the website does not constitute a part of this registration statement.

Audit Committee

The functions of the Audit Committee are to (i) review the qualifications of the independent auditors, our annual and interim financial statements, the independent auditor's report, significant reporting or operating issues and corporate policies and procedures as they relate to accounting and financial controls; and (ii) to consider and review other matters relating to our financial and accounting affairs.

The current members of the Audit Committee are Mr. Berman, who is the Audit Committee Chairman, Mr. Hancock, Dr. Hariri and Mr. Zecchini. The Company has determined that (i) Mr. Berman qualifies as an "audit committee financial expert" as defined under the rules of the SEC and is "independent" within the meaning of NASDAQ Rule 5605(a)(2) and the applicable laws and regulations of the SEC, and (ii) Dr. Hariri and Mr. Zecchini meet NASDAQ's financial literacy and financial sophistication requirements and are "independent" within the meaning of NASDAQ Rule 5605(a)(2) and the applicable laws and regulations of the SEC.

Compensation Committee

The purpose of the Compensation Committee is to discharge our board of directors' responsibilities relating to compensation of the Company's directors and executive officers, to produce an annual report on executive compensation for inclusion in the Company's annual proxy statement, as necessary, and to oversee and advise our board of directors on the adoption of policies that govern the Company's compensation programs, including stock incentive and benefit plans.

The current members of the Compensation Committee are Mr. Zecchini, who is the Compensation Committee Chairman, Dr. Mandalam and Mr. Berman, each of whom is independent under applicable independence requirements. Each of the current members of the Compensation Committee is a "non-employee director" under Section 16 of the Exchange Act and an "outside director" for purposes of Section 162(m) of the Code.

Nomination and Governance Committee

The functions of the Nomination and Governance Committee are to (i) make recommendations to our board of directors regarding the size of our board of directors, (ii) make recommendations to our board of directors regarding criteria for the selection of director nominees, (iii) identify and recommend to our board of directors for selection as director nominees individuals qualified to become members of the Board, (iv) recommend committee assignments to our board of directors, (v) recommend to our board of directors corporate governance principles and practices appropriate to the Company, and (vi) lead our board of directors in an annual review of its performance.

The current members of the Nomination and Governance Committee are Dr. Mandalam, who is the Nomination and Governance Committee Chairman, Mr. Berman and Dr. Hariri.

Science and Technology Committee

The purpose of the Science and Technology Committee is to oversee matters pertaining to the Company's strategic direction as related to product and services serving the cellular therapy business and investments in research, development, and technology relating thereto. The committee may include director and persons who are not directors. The current members of the Science and Technology Committee are Dr. Robert Hariri, M.D., Ph.D., who is the Science and Technology Committee Chairman, Mr. Hancock and Mr. Zecchini.

Corporate Code of Conduct

The Company has adopted a corporate code of conduct that applies to its directors and all employees, including the Company's Chief Executive Officer and Chief Financial Officer. The Company has posted the text of its corporate code of conduct on the Company's website at www.cryoport.com on the "Investor Relations: Corporate Governance" page under the heading "Governance Documents".

Item 11. Executive Compensation

SUMMARY COMPENSATION TABLE

The following table contains information with respect to the compensation of our Chief Executive Officer and Chief Financial Officer for the years ended December 31, 2019 and 2018. We refer to our Chief Executive Officer and Chief Financial Officer as our "Named Executive Officers."

Name and Principal Position	Year	Salary (1) ($)	Bonus ($)	Option Awards (2) ($)	All Other Compensation ($)	Total Compensation ($)
Jerrell W. Shelton	2019	600,000	—	3,239,464(3)	—	3,839,464
President and Chief Executive Officer	2018	581,250	100,000(5)	2,091,151(3)	—	2,772,401
Robert S. Stefanovich	2019	331,250	—	779,269(4)	—	1,110,519
Senior Vice President and Chief Financial Officer	2018	293,625	60,000(5)	478,698(4)	—	832,323

(1) This column represents the dollar value of base salary earned during each fiscal year indicated.

(2) This amount represents the total grant date fair value of all stock option awards at the date of grant. Pursuant to SEC rules, the amount shown excludes the impact of estimated forfeitures related to service-based vesting conditions. For information on the valuation assumptions with respect to the grants made during the years ended December 31, 2019 and 2018, see Note 2 "Summary of Significant Accounting Policies" in the accompanying consolidated financial statements.

(3) Based on the recommendation of the Compensation Committee and approval by our board of directors, on April 1, 2019 and March 28, 2018, Mr. Shelton was granted an option to purchase 375,000 and 290,000 shares, respectively, of common stock in connection with his service as Chief Executive Officer of the Company. The exercise prices of the options are equal to or greater than the fair value of the Company's stock as of the respective grant dates.

(4) Based on the recommendation of the Compensation Committee and approval by our board of directors, on April 1, 2019 and March 28, 2018, Mr. Stefanovich was granted an option to purchase 90,000 and 66,300 shares of common stock, respectively, of common stock in connection with his service as Chief Financial Officer of the Company. The exercise prices of the options are equal to or greater than the fair value of the Company's stock as of the respective grant dates.

(5) This amount represents the bonus earned for the year ended December 31, 2018 as approved by the Compensation Committee of our board of directors.

Narrative Disclosure to Summary Compensation Table

Employment Contracts

Jerrell W. Shelton .

On May 26, 2017, the Company entered into a new employment agreement effective June 1, 2017 (the "Shelton Agreement") with Mr. Shelton with respect to his employment as President and Chief Executive Officer of the Company, replacing his previous employment agreement.

The Shelton Agreement provides for an annual base salary in an amount determined by the Company's Compensation Committee of the Board of Directors of the Company and Mr. Shelton's annual base salary was increased to $550,000 effective on June 1, 2017 and increased to $600,000 in May 2018. Mr. Shelton is eligible to participate in the equity incentive plans and cash bonus plans adopted by the Company from time-to-time. Mr. Shelton has agreed not to solicit or encourage or attempt to solicit or encourage any employee of the Company to leave employment with the Company during the term of the Shelton Agreement and for a period of eighteen months following the termination of the Shelton Agreement. The Shelton Agreement expires on June 1, 2021. Payments due to Mr. Shelton upon a termination of the Shelton Agreement are described below under "Potential Payments On Termination Or Change in Control".

On October 28, 2019, the Company entered into the First Amendment to Employment Agreement effective November 1, 2019 (the "Amendment") with Mr. Shelton, which amended the Shelton Agreement to increase the number of months that Mr. Shelton is entitled to continuation of base salary in the event he is terminated without cause or he terminates for good reason from eighteen (18) months to twenty-four (24) months.

Robert S. Stefanovich

On October 28, 2019, the Company entered into an employment agreement effective November 1, 2019 (the "Stefanovich Agreement") with Mr. Robert S. Stefanovich with respect to his continued employment as Senior Vice President, Chief Financial Officer and Treasurer of the Company. Prior to entering into the Agreement, Mr. Stefanovich did not have a written employment agreement.

The Agreement provides for an annual base salary in an amount determined by the Company's Compensation Committee of the Board of Directors of the Company. Mr. Stefanovich is eligible to participate in the equity incentive plans and cash bonus plans adopted by the Company from time-to-time. Neither Mr. Stefanovich's annual base salary nor his participation in equity incentive plans or cash bonus plans were modified in connection with entering into the Agreement.

Mr. Stefanovich has agreed not to solicit or encourage or attempt to solicit or encourage any employee of the Company to leave employment with the Company during the term of the Stefanovich Agreement and for a period of eighteen (18) months following the termination of the Stefanovich Agreement. The Stefanovich Agreement has an initial term of three years. Payments due to Mr. Stefanovich upon a termination of the Stefanovich Agreement are described below under "Potential Payments On Termination Or Change in Control".

Mr. Stefanovich's annual base salary was increased to $350,000 in May 2019, from $300,000 in May 2018 and $283,000 in May 2017. He is eligible for an incentive bonus targeted at 50% of his annual base salary, which was increased from 40% in May 2018 and 20% prior to that.

OUTSTANDING EQUITY AWARDS AT DECEMBER 31, 2019

The following table shows information regarding unexercised stock options held by our Named Executive Officers as of December 31, 2019:

Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)	Option Expiration Date
Jerrell W. Shelton	8,334(1)	—	—	$ 2.28	10/22/22
	83,334(2)	—	—	$ 2.40	11/5/22
	325,209(3)	—	—	$ 3.24	6/28/23
	369,700(4)	—	—	$ 4.80	12/18/24
	219,892(5)	—	—	$ 7.80	5/07/25
	807,000(6)	—	—	$ 5.00	8/20/25
	255,524(7)	—	—	$ 1.87	5/06/26
	340,000(8)	—	—	$ 3.44	5/23/27
	271,875(9)	18,125	—	$ 8.65	3/28/28
	250,000(10)	125,000	—	$ 12.79	4/01/29
Robert Stefanovich	10,417(11)	—	—	$ 10.32	6/20/21
	5,000(12)	—	—	$ 5.16	8/3/22
	69,918(13)	—	—	$ 3.24	6/27/23
	73,334(14)	—	—	$ 4.80	2/18/24
	57,484(15)	—	—	$ 7.80	5/07/25
	42,164(16)	—	—	$ 3.07	8/20/25
	135,000(17)	—	—	$ 1.87	5/06/26
	81,000(18)	—	—	$ 3.21	5/18/27
	62,156(19)	4,144	—	$ 8.65	3/28/28
	60,000(20)	17,485	—	$ 12.79	4/01/29

(1) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Shelton was granted an option to purchase 8,334 shares of common stock exercisable at $2.28 per share on October 22, 2012 upon joining the board of directors. Options vests in twelve equal monthly installments. The exercise price for shares of common stock pursuant to the options is equal to the fair value of the Company's stock as of the grant date.

(2) Based on the recommendation of the Compensation Committee and approval our board of directors, Mr. Shelton was granted an option to purchase 137,500 shares of common stock exercisable at $2.40 per share on November 5, 2012, which vests in six equal monthly installments. 54,166 of these options were issued under the 2011 stock option plan and exercised in May and November 2013 and 83,884 were issued outside of a plan. The exercise price for shares of common stock pursuant to the option is equal to the fair value of the Company's stock as of the grant date.

(3) Based on the recommendation of the Compensation Committee and approval our board of directors, Mr. Shelton was granted an option to purchase 325,209 shares of common stock exercisable at $3.24 per share on June 28, 2013. The option vests $2/48^{th}$ immediately with the remainder vesting $1/48^{th}$ per month for 46 months. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(4) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Shelton was granted an option to purchase 387,501 shares of common stock exercisable at $4.80 per share on December 18, 2014. The option vests in monthly installments over a four-year period, 262,500 shares were issued outside of a plan. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(5) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Shelton was granted an option to purchase 219,892 shares of common stock exercisable at $7.80 per share on May 7, 2015. The option vests in monthly installments over a four-year period, 219,892 shares were issued outside of a plan. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(6) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Shelton was granted an option to purchase 827,000 shares of common stock exercisable at $3.07 per share on August 20, 2015, subject to stockholder approval of the 2015 Omnibus Equity Incentive Plan which occurred on November 20, 2015. The award was amended on February 3, 2016 to increase the exercise price of the option from $3.07 to $5.00. The option vests in monthly installments over a four-year period. The exercise price for the shares of common stock pursuant to the option is equal to or more than the fair value of the Company's stock on the date of grant.

(7) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Shelton was granted an option to purchase 280,000 shares of common stock exercisable at $1.87 per share on May 6, 2016. The option vests in monthly installments over a four-year period. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(8) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Shelton was granted an option to purchase 340,000 shares of common stock exercisable at $3.44 per share on May 23, 2017. The option vests in monthly installments over a four-year period. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(9) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Shelton was granted an option to purchase 290,000 shares of common stock exercisable at $8.65 per share on March 28, 2018. The option vests in monthly installments over a four-year period. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(10) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Shelton was granted an option to purchase 375,000 shares of common stock exercisable at $12.79 per share on April 1, 2019. The option vests in monthly installments over a four-year period. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(11) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Stefanovich was granted an option to purchase 10,417 shares of common stock exercisable at $10.32 per share on June 20, 2011. The option vests in monthly installments over a four-year period, with a portion of the option vested on an accelerated basis as a result of the Company meeting defined financial targets. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(12) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Stefanovich was granted an option to purchase 5,000 shares of common stock exercisable at $5.16 per share on August 3, 2012. The option vests in six-month installments over a four-year period. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(13) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Stefanovich was granted an option to purchase 69,918 shares of common stock exercisable at $3.24 per share on June 28, 2013. The options vest in equal monthly installments over four years. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(14) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Stefanovich was granted an option to purchase 73,334 shares of common stock exercisable at $4.80 per share on December 18, 2014. The options vest in equal monthly installments over four years. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(15) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Stefanovich was granted an option to purchase 57,484 shares of common stock exercisable at $7.80 per share on May 7, 2015. The options vest in equal monthly installments over a four-year period, 57,484 shares were issued outside of a plan. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(16) Based on the recommendation of the Compensation Committee and approval by our board of directors , Mr. Stefanovich was granted an option to purchase 177,200 shares of common stock exercisable at $3.07 per share on August 20, 2015, subject to stockholder approval of the 2015 Omnibus Equity Incentive Plan which occurred on November 20, 2015. The option vests in monthly installments over a four-year period. The exercise price for the shares of common stock pursuant to the option is equal to or more than the fair value of the Company's stock on the date of grant.

(17) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Stefanovich was granted an option to purchase 135,000 shares of common stock exercisable at $1.87 per share on May 6, 2016. The option vests in monthly installments over a four-year period. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(18) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Stefanovich was granted an option to purchase 81,000 shares of common stock exercisable at $3.21 per share on May 18, 2017. The option vests in monthly installments over a four-year period. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(19) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Stefanovich was granted an option to purchase 66,300 shares of common stock exercisable at $8.65 per share on March 28, 2018. The option vests in monthly installments over a four-year period. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

(20) Based on the recommendation of the Compensation Committee and approval by our board of directors, Mr. Stefanovich was granted an option to purchase 90,000 shares of common stock exercisable at $12.79 per share on April 1, 2019. The option vests in monthly installments over a four-year period, with a portion of the option vested on an accelerated basis as a result of the Company meeting defined financial targets. The exercise price for the shares of common stock pursuant to the option is equal to the fair value of the Company's stock on the date of grant.

Potential Payments On Termination Or Change In Control

Pursuant to the Shelton Agreement, as amended, if Mr. Shelton terminates the Agreement, he dies, or he is terminated for cause, he will be entitled to all compensation and benefits that he earned through the date of termination. If he is terminated without cause or he terminates for good reason, he will be entitled to continuation of base salary for twenty-four (24) months following termination and one half of unvested options as of date of termination shall become fully vested; provided that if the termination date is within twelve months after a change in control of the Company, then all of the unvested options as of such date will become fully vested.

Pursuant to the Stefanovich Agreement, if Mr. Stefanovich terminates the Stefanovich Agreement, he dies, or he is terminated for cause, he will be entitled to all compensation and benefits that he earned through the date of termination. If he is terminated without cause or he terminates for good reason, he will be entitled to continuation of base salary for eighteen (18) months following termination. The 2018 Omnibus Equity Incentive Plan, 2015 Omnibus Equity Incentive Plan, the Cryoport, Inc. 2011 Stock Incentive Plan and the Cryoport, Inc. 2009 Stock Incentive Plan each provide that if a "change in control" occurs, the Compensation Committee has the discretion to provide in the applicable option agreement that any outstanding awards shall become fully vested and exercisable.

The Company does not provide any additional payments to the named executive officers upon their resignation, termination, retirement, or upon a change of control.

Change in Control Agreements

There are no understandings, arrangements or agreements known by management at this time which would result in a change in control of the Company or any subsidiary.

DIRECTOR COMPENSATION

Compensation for our board of directors is governed by the Company's Compensation Committee.

Director Fees

Director fees are paid in cash, restricted shares of the Company's common stock or a combination thereof, at the option of the director.

Option 1: Annual cash compensation of $40,000, paid quarterly,

Option 2: Annual cash compensation of $13,333, paid quarterly and $26,667 converted into common stock using the volume weighted average price ("VWAP") of the Company's common stock for the last five days of the trading month ending each quarter; or

Option 3: No annual cash compensation, but $40,000 converted into the Company's common stock using the VWAP of the stock for the last five days of the trading month ending each quarter and paid quarterly. This option carries a 15% premium, as there is no cash outlay to the Company. The calculation would be $40,000 X 1.15 = $46,000/VWAP.

In addition to the compensation options above the following compensation apply to non-employee directors chairing a committee of the Board. This compensation will be paid on the same basis as the director chose from the options described above:

Chairman/Lead Director	$	25,000
Audit Committee	$	20,000
Compensation Committee	$	15,000
Nominating and Corporate Governance Committee	$	10,000
Science and Technology Committee	$	24,000

Stock option grants

Newly appointed/elected directors receive an inducement ('sign-on') option grant to purchase 50,000 shares of the Company's common stock, vesting ratably on a monthly basis over three years, effective as of, with an exercise price equal to the closing price of the Company's common stock on the date the directorship commences.

Annual Option Grants

Each director shall receive annual option grants to purchase 35,000 shares of the Company's common stock, vesting ratably on a monthly basis over twelve months, effective as of, and with an exercise price equal to the closing price of the Company's common stock on the date of the Annual Meeting of Stockholders.

Upon joining the Board, new directors shall be granted a pro-rated annual award (i.e., for portion of year served prior to next shareholder meeting), which shall vest in monthly increments until the next annual meeting.

All options shall include a provision that provides that if such director ceases to be a director, vested options shall lapse (to the extent not exercised) on the earlier of: (i) ten years; or (ii) three years after the date the director ceases to be a director of the Company.

The following table sets forth the director compensation of the non-employee directors of the Company during the year ended December 31, 2019.

Name	Fees Earned Or Paid in Cash ($)(1)	Stock Awards ($)(2)	Option Awards ($)(3)	All Other Compensation ($)	Total ($)
Richard Berman	85,000	—	326,408	—	411,408
Robert Hariri, M.D., Ph.D	64,000	—	326,408	—	390,408
Ramkumar Mandalam, Ph.D.	41,667	8,333	326,408	—	376,408
Edward Zecchini	18,333	36,667	326,408	—	381,408
Daniel Hancock	—	46,000	791,656	—	837,656

(1) Fees earned or paid in cash as shown in this schedule represent payments and accruals for directors' services earned during the year ended December 31, 2019.
(2) As of December 31, 2019, none of the non-employee directors held any unvested stock awards.
(3) This column represents the total grant date fair value of all stock options granted during the year ended December 31, 2019. Pursuant to SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For information on the valuation assumptions with respect to the grants made, refer to Note 2 "Summary of Significant Accounting Policies" in the accompanying consolidated financial statements, As of December 31, 2019: Richard Berman held unexercised options to purchase 134,134 shares of the Company's common stock; Robert Hariri, M.D., Ph.D. held unexercised options to purchase 155,000 shares of the Company's common stock; Ramkumar Mandalam, Ph.D. held unexercised options to purchase 212,502 shares of the Company's common stock; Edward Zecchini held unexercised options to purchase 212,502 shares of the Company's common stock; and Daniel Hancock held unexercised options to purchase 97,850 shares of the Company's common stock

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The following table sets forth information with respect to the beneficial ownership of the Company's common stock as of March 1, 2020, by each person or group of affiliated persons known to the Company to beneficially own 5% or more of its common stock, each director, each named executive officer, and all of its directors and executive officers as a group. As of March 1, 2020, there were 37,644,867 shares of common stock outstanding. Unless otherwise indicated, the address of each beneficial owner listed below is c/o Cryoport, Inc., 112 Westwood Place, Suite 350, Brentwood, TN 37027.

The following table gives effect to the shares of common stock issuable within 60 days of March 1, 2020, upon the exercise of all options and other rights beneficially owned by the indicated stockholders on that date. Unless otherwise indicated, the persons named in the table have sole voting and sole investment control with respect to all shares beneficially owned.

Beneficial Owner	Number of Shares of Common Stock Beneficially Owned(2)	Percentage of Shares of Common Stock Beneficially Owned
Named Executive Officers and Directors:		
Jerrell W. Shelton	3,297,508(1)	8.1%
Richard Berman	148,605(1)(3)	*
Robert Hariri, M.D. Ph.D.	182,683(1)	*
Edward Zecchini	248,566(1)	*
Ramkumar Mandalam Ph.D.	240,731(1)	*
Daniel Hancock	68,566(1)	*
Robert S. Stefanovich	609,117(1)	1.6%
All directors and executive officers as a group (7 persons)	4,795,776(1)	11.4%
Other Stockholders:		
Alger Associates, Inc.	4,664,578(4)	12.4%
Black Rock, Inc.	2,521,969(5)	6.7%
Victory Capital Management	2,348,908(6)	6.2%
The Vanguard Group, Inc.	1,868,923(7)	5.0%
Total for all Directors, Executive Officers and Other Stockholders	11,982,323	31.8%

* Represents less than 1%

(1) Includes shares which individuals shown above have the right to acquire as of March 1, 2020, or within 60 days thereafter, pursuant to outstanding stock options and/or warrants as follows: Mr. Shelton — 2,985,912 shares; Mr. Berman — 148,605 shares; Dr. Hariri — 167,383 shares; Dr. Mandalam—209,585 shares; Mr. Zecchini—209,585, Mr. Hancock—65,764 and Mr. Stefanovich — 608,117 shares.

(2) The number and percentage of shares beneficially owned is determined in accordance with Rule 13d-3 of the Exchange Act, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rule, beneficial ownership includes any shares as to which the holder has sole or shared voting power or investment power and also any shares which the holder has the right to acquire within 60 days.

(3) Includes 9,250 warrants and 8,138 shares owned by Mrs. Richard Berman, spouse of Mr. Berman

(4) According to the Schedule 13G filed by Alger Associates, Inc. on February 14, 2020, the shares reported by Alger Associates, Inc. are beneficially owned by one or more open-end investment companies or other managed accounts that are investment management clients of Fred Alger Management, LLC, ("FAM") a registered investment adviser. FAM is a 100% owned subsidiary of Alger Group Holdings, LLC ("AGH"), a holding company. AGH is a 100% owned subsidiary of Alger Associates, Inc., a holding company. Alger Associates, Inc., AGH, and FAM each hold sole power to vote, or to direct the vote of, and sole power to dispose, or to direct the disposition of, these shares. The shares are owned, directly or indirectly, by Alger Associates, Inc., FAM, or AGH. The address for these entities is 360 Park Avenue South, New York, NY 10010.

(5) According to the Schedule 13G filed by Black Rock, Inc. on February 5, 2020, the shares reported by Black Rock, Inc. are beneficially owned by Black Rock, Inc., which holds the sole power to vote or to direct the vote of 2,459,121 shares and sole power to dispose, or to direct the disposition of, 2,521,969 shares. The shares are owned, directly or indirectly, by Black Rock, Inc., or its subsidiaries BlackRock Advisors, LLC, BlackRock Asset Management Canada Limited, BlackRock Fund Advisors, BlackRock Asset Management Ireland Limited, BlackRock Institutional Trust Company, National Association, BlackRock Financial Management, Inc., BlackRock Asset Management Schweiz AG, and BlackRock Investment Management, LLC. The address for these entities is 55 East 52nd Street, New York, NY 10055.

(6) According to the Schedule 13G filed by Victory Capital Management Inc. on January 31, 2020, the shares reported by Victory Capital Management Inc. are beneficially owned by Victory Capital Management Inc. which holds the sole power to vote or to direct the vote of 2,276,508 shares, and sole power to dispose, or to direct the disposition of, 2,348,908 shares. The address for this entity is 4900 Tiedeman Rd. 4th Floor, Brooklyn, OH 44144.

(7) According to the Schedule 13G filed by The Vanguard Group, Inc. on February 11, 2020, with respect to the shares reported by The Vanguard Group, Inc. are beneficially owned by The Vanguard Group, Inc., except that Vanguard Fiduciary Trust Company ("VFTC"), a wholly-owned subsidiary of The Vanguard Group, Inc., is the beneficial owner of 63,011 shares of the Common Stock outstanding of the Company as a result of its serving as investment manager of collective trust accounts and Vanguard Investments Australia, Ltd. ("VIA"), a wholly-owned subsidiary of The Vanguard Group, Inc., is the beneficial owner of 8,468 shares of the Common Stock outstanding of the Company as a result of its serving as investment manager of Australian investment offerings. The Vanguard Group, Inc. has (i) the sole power to vote or direct to vote 68,113 shares, (ii) shared power to vote or direct to vote 3,366 shares, (iii) sole power to dispose of or to direct the disposition of 1,802,546 shares, and (iv) shared power to dispose or to direct the disposition of 66,377 shares. The address for these entities is 100 Vanguard Blvd., Malvern, PA 19355.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table sets forth certain information as of December 31, 2019 concerning the Company's common stock that may be issued upon the exercise of options or warrants or pursuant to purchases of stock under the Company's equity compensation plans.

Plan Category	(a) Number of Securities to be Issued Upon the Exercise of Outstanding Options and Warrants	(b) Weighted-Average Exercise Price of Outstanding Options and Warrants	(c) Number of securities remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
Equity compensation plans approved by stockholders	5,583,619	$ 7.55	2,653,409
Equity compensation plans not approved by stockholders(1)	2,096,990	$ 4.45	N/A
Total	7,680,609	$ 6.71	2,653,409

(1) From November 5, 2012 through May 7, 2015, a total of 1,095,962 options outstanding were granted to employees outside of an option plan of which 890,935 shares were issued to Mr. Shelton and 127,402 shares were issued to Mr. Stefanovich.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Certain Relationships and Related Transactions

Since January 1, 2018, the Company did not have any transactions to which it has been a participant that involved amounts that exceeded or will exceed the lesser of (i) $120,000 or (ii) one percent of the average of the Company's total assets at year-end for the last two completed fiscal years, and in which any of the Company's directors, executive officers or any other "related person" as defined in Item 404(a) of Regulation S-K had or will have a direct or indirect material interest.

Director Independence

Our board of directors is responsible for determining the independence of our directors. For purposes of determining director independence, our board of directors has applied the definitions set forth in NASDAQ Rule 5605(a)(2) and the related rules of the SEC. Based upon its evaluation, our board of directors has affirmatively determined that the following directors meet the standards of independence: Mr. Berman, Dr. Hariri, Dr. Mandalam, Mr. Zecchini and Mr. Hancock.

Item 14. Principal Accountant Fees and Services

***Independent Registered Public Accounting Firms* Fees**

The following table shows the fees that were billed to us for the audit and other services provided to the Company by Ernst & Young LLP ("E&Y") in 2019 and KMJ Corbin & Company LLP ("KMJ") in 2018.

	Year Ended December 31, 2019	Year Ended December 31, 2018
Audit Fees	$ 378,557	$ 223,123
Audit-Related Fees	—	15,900
Tax Fees	—	16,457
	$ 378,557	$ 255,480

The fees billed to us by E&Y and KMJ during or related to the years ended December 31, 2019 and 2018 consist of audit fees, audit-related fees and tax fees, as follows:

Audit Fees. Represents the aggregate fees billed to us for professional services rendered for the audit of our annual consolidated financial statements and for the reviews of our consolidated financial statements included in our Form 10-Q filings for each fiscal quarter.

Audit-Related Fees. Represents the aggregate fees billed to us for assurance and related services that are reasonably related to the performance of the audit and review of our consolidated financial statements that are not already reported in Audit Fees. These services include accounting consultations and attestation services that are not required by statute such as comfort letters, S-1 and S-8 filings.

Tax Fees. Represents the aggregate fees billed to us for professional services rendered for tax returns, compliance and tax advice.

There were no other fees billed by E&Y or KMJ for services rendered to the Company, other than the services described above in 2019 and 2018.

Policy on Audit Committee Pre-Approval of Fees

The Audit Committee must pre-approve all services to be performed for us by our independent auditors. Pre-approval is granted usually at regularly scheduled meetings of the Audit Committee. If unanticipated items arise between regularly scheduled meetings of the Audit Committee, the Audit Committee has delegated authority to the chairman of the Audit Committee to pre-approve services, in which case the chairman communicates such pre-approval to the full Audit Committee at its next meeting. The Audit Committee also may approve the additional unanticipated services by either convening a special meeting or acting by unanimous written consent. During the years ended December 31, 2019 and 2018, all services billed by E&Y and KMJ were pre-approved by the Audit Committee in accordance with this policy.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a)(1) *Consolidated Financial Statements:*

(a)(2) *Financial Statement Schedules:* All financial statement schedules are omitted because they are not applicable or the required information is included in the Consolidated Financial Statements or notes thereto.

(a)(3) *Exhibits.*

Index to Exhibits

Exhibit No.	Description
22.1^	Asset Purchase Agreement, dated May 14, 2019, by and between Cryogene, Inc. and CryoGene Partners. Incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K dated May 14, 2019.
3.1	Amended and Restated Articles of Incorporation of the Company, as amended. Incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2012.
3.2	Amended and Restated Bylaws of the Company. Incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K dated February 8, 2016.

Exhibit No.	Description
3.3	Amended and Restated Certificate of Designation of Class A Preferred Stock. Incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K dated March 30, 2015.
3.4	Certificate of Designation of Class B Preferred Stock. Incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K dated February 20, 2015.
3.5	Amendment to Certificate of Designation of Class B Preferred Stock. Incorporated by reference to the Company's Amendment No. 1 to Registration Statement on Form S-1 dated April 17, 2015 and referred to as Exhibit 3.6.
3.6	Certificate of Change filed with the Nevada Secretary of State on May 12, 2015. Incorporated by reference to Exhibit 3.7 of the Company's Annual Report on Form 10-K filed with the SEC on May 19, 2015.
3.7	Amendment to Certificate of Designation of Class A Preferred Stock. Incorporated by reference to the Company's Amendment No. 4 to Registration Statement on Form S-1 dated June 22, 2015 and referred to as Exhibit 3.8.
3.8	Amendment to Certificate of Designation of Class B Preferred Stock. Incorporated by reference to the Company's Amendment No. 4 to Registration Statement on Form S-1 dated June 22, 2015 and referred to as Exhibit 3.9.
3.9	Amendment to Certificate of Designation of Class A Preferred Stock. Incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K dated September 1, 2015.
3.10	Amendment to Certificate of Designation of Class B Preferred Stock. Incorporated by reference to Exhibit 3.2 of the Company's Current Report on Form 8-K dated September 1, 2015.
3.11	Certificate of Amendment filed with the Nevada Secretary of State on November 23, 2015. Incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K dated November 23, 2015.
3.12	Certificate of Amendment filed with the Nevada Secretary of State on May 30, 2018.
4.1	Form of Warrant and Warrant Certificate issued in connection with public offering of Units. Incorporated by reference to the Company's Amendment No. 4 to Registration Statement on Form S-1 dated June 22, 2015 and referred to as Exhibit 4.28.
4.2	Form of Warrant issued to Aegis Capital Corp. in connection with public offering of Units. Incorporated by reference to the Company's Amendment No. 3 to Registration Statement on Form S-1 dated June 12, 2015 and referred to as Exhibit 4.29.
4.3	Form of Warrant issued with Second Amended and Restated Note. Incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K dated March 1, 2016.
4.4+	Description of the Company's securities.
10.1	Amended and Restated Master Consulting and Engineering Services Agreement, by and between KLATU Networks, LLC and Cryoport Systems, Inc., dated September 16, 2015. Incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K dated September 16, 2015.
10.2	2011 Stock Incentive Plan (as amended and restated). Incorporated by reference to Exhibit B of the Company's Definitive Proxy Statement on Schedule 14A filed with the SEC on July 30, 2012.

Exhibit No.	Description
10.3	Form of Stock Option Award Agreement. Incorporated by reference to Exhibit 10.37 to the Company's Current Report on Form 8-K filed with the SEC on September 27, 2011.
10.4	Form of Non-Qualified Stock Option Award Agreement. Incorporated by reference to Exhibit 10.38 to the Company's Current Report on Form 8-K filed with the SEC on September 27, 2011.
10.5*	Stock Option Agreement dated November 5, 2012 between the Company and Jerrell Shelton. Incorporated by reference to Exhibit 10.28 to the Company's Annual Report on Form 10-K filed with the SEC on June 25, 2013.
10.6*	Form of Non-Qualified Stock Option Award Agreement. Incorporated by reference to Exhibit 10.38 to the Company's Current Report on Form 8-K filed with the SEC on September 27, 2011.
10.7*	Stock Option Agreement dated December 18, 2014 between the Company and Jerrell Shelton. Incorporated by reference to Exhibit 10.42 of the Company's Annual Report on Form 10-K filed with the SEC on May 19, 2015.
10.8	Purchase and Sale Agreement, by and between KLATU Networks, LLC and Cryoport Systems, Inc., dated September 16, 2015. Incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated September 16, 2015.
10.9	2015 Omnibus Equity Incentive Plan. Incorporated by reference to Appendix A of the Company's Definitive Proxy Statement on Schedule 14A filed with the SEC on October 1, 2015.
10.10*	Cryoport, Inc. 2018 Omnibus Equity Incentive Plan. Incorporated by reference to Appendix A of the Company's Definitive Proxy Statement with respect to the 2018 Annual Meeting of Stockholders held on May 17, 2018, as filed with the Commission on April 9, 2018.
10.11*	Annual Management Incentive Plan. Incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated March 28, 2018.
10.12*	Employment Agreement effective as of November 1, 2019 between the Company and Robert S. Stefanovich. Incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated October 28, 2019.
10.13*	First Amendment to Employment Agreement effective as of November 1, 2019 between the Company and Jerrell W. Shelton. Incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K dated October 28, 2019.
16.1	Letter to Securities and Exchange Commission from KMJ Corbin & Company LLP dated August 16, 2019. Incorporated by reference to Exhibit 16.1 of the Company's Current Report on Form 8-K dated August 20, 2019.
21+	Subsidiaries of Registrant.
23.1+	Consent of KMJ Corbin & Company LLP, Independent Registered Public Accounting Firm.
23.2+	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
31.1+	Certification of Principal Executive Officer, pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934.
31.2+	Certification of Principal Financial Officer, pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934.

Exhibit No.	Description
32.1+	Certification of Principal Executive Officer, pursuant to Rule 13a-14(b)/15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350.
32.2+	Certification of Principal Financial Officer, pursuant to Rule 13a-14(b)/15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350.
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.

^ Certain exhibits and schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The Company hereby undertakes to furnish copies of such omitted materials supplementally upon request by the SEC.
* Indicates a management contract or compensatory plan or arrangement.
+ Filed herewith.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

Cryoport, Inc.

By: /s/ JERRELL W. SHELTON
Jerrell W. Shelton
Chief Executive Officer and Director

Date: March 10, 2020

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/s/ JERRELL W. SHELTON Jerrell W. Shelton	Chief Executive Officer and Director (Principal Executive Officer)	March 10, 2020
/s/ ROBERT S. STEFANOVICH Robert S. Stefanovich	Chief Financial Officer (Principal Financial and Accounting Officer)	March 10, 2020
/s/ RICHARD BERMAN Richard Berman	Director	March 10, 2020
/s/ DANIEL M. HANCOCK Daniel M. Hancock	Director	March 10, 2020
/s/ ROBERT HARIRI, M.D., PH.D. Robert Hariri, M.D., Ph.D.	Director	March 10, 2020
/s/ RAMKUMAR MANDALAM, PH.D. Ramkumar Mandalam Ph.D.	Director	March 10, 2020
//s/ EDWARD ZECCHINI Edward Zecchini	Director	March 10, 2020

Cryoport, Inc. and Subsidiaries
Consolidated Financial Statements
As of December 31, 2019 and 2018
Years Ended December 31, 2019 and 2018

Cryoport, Inc. and Subsidiaries
Consolidated Financial Statements
INDEX TO FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Cryoport, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of Cryoport, Inc. and subsidiaries (the Company) as of December 31, 2019, the related consolidated statements of operations, comprehensive loss**,** stockholders' equity and cash flows for the year then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019, and the results of its operations and its cash flows for the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated March 10, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2019.

Irvine, CA
March 10, 2020

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of Cryoport, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of Cryoport, Inc. and subsidiaries (the “Company”) as of December 31, 2018, the related consolidated statements of operations, comprehensive loss, stockholders’ equity, and cash flows for the year then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018, and the results of its operations and its cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ KMJ Corbin & Company LLP

Costa Mesa, California
March 13, 2019

We began serving as the Company’s auditor in 2005. In 2019, we became the predecessor auditor.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Cryoport, Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Cryoport, Inc. and subsidiaries' internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control —Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Cryoport, Inc. and subsidiaries' (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

As indicated in the accompanying Management's Report on Internal Control over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Cryogene, Inc., which is included in the 2019 consolidated financial statements of the Company and constituted 18.6% and 16.5% of total assets and net assets, respectively, as of December 31, 2019 and 8.9% and (2.4%) of revenues and net loss, respectively, for the year then ended. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of Cryogene, Inc.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheet of the Company as of December 31, 2019, the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for the period ended December 31, 2019, and the related notes and our report dated March 10, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Irvine, California
March 10, 2020

Cryoport, Inc. and Subsidiaries
Consolidated Balance Sheets

	December 31, 2019	December 31, 2018
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 47,234,770	$ 37,327,125
Short-term investments	47,060,786	9,930,968
Accounts receivable, net of allowance for doubtful accounts of $140,000 and $100,000, respectively	7,098,191	3,543,666
Inventories	473,961	220,514
Prepaid expenses and other current assets	1,096,855	752,269
Total current assets	102,964,563	51,774,542
Property and equipment, net	11,833,057	4,357,498
Operating lease right-of-use assets	4,460,319	—
Intangible assets, net	5,177,578	137,220
Goodwill	10,999,722	—
Deposits	437,299	350,837
Total assets	$ 135,872,538	$ 56,620,097
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable and other accrued expenses	$ 2,498,375	$ 1,709,397
Accrued compensation and related expenses	1,903,720	1,262,478
Deferred revenue	367,867	66,315
Operating lease liabilities	665,901	—
Finance lease liabilities	24,617	23,191
Total current liabilities	5,460,480	3,061,381
Convertible note, net of discount of $288,400 as of December 31, 2018	—	14,711,580
Operating lease liabilities, net of current portion	4,101,236	—
Finance lease liabilities, net of current portion	8,539	33,156
Deferred rent liability, net of current portion	—	267,415
Deferred tax liability	20,935	—
Total liabilities	9,591,190	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; 37,339,787 and 30,319,038 issued and outstanding at December 31, 2019 and 2018, respectively	37,340	30,319
Additional paid-in capital	285,609,022	179,501,577
Accumulated deficit	(159,319,963)	(140,988,484)
Accumulated other comprehensive income (loss)	(45,051)	3,153
Total stockholders' equity	126,281,348	38,546,565
Total liabilities and stockholders' equity	$ 135,872,538	$ 56,620,097

See accompanying notes to consolidated financial statements.

Cryoport, Inc. and Subsidiaries
Consolidated Statements of Operations

	Years Ended December 31,	
	2019	**2018**
Revenues	$ 33,941,900	$ 19,626,453
Cost of revenues	16,590,244	9,386,188
Gross margin	17,351,656	10,240,265
Operating costs and expenses:		
General and administrative	17,465,191	9,798,793
Sales and marketing	13,820,868	7,245,644
Engineering and development	3,740,642	1,840,443
Total operating costs and expenses	35,026,701	18,884,880
Loss from operations	(17,675,045)	(8,644,615)
Other income (expense):		
Interest expense	(1,366,924)	(69,253)
Warrant inducement and repricing expense	—	(899,410)
Other income, net	772,065	77,631
Total other expense, net	(594,859)	(891,032)
Loss before provision for income taxes	(18,269,904)	(9,535,647)
Provision for income taxes	(61,575)	(19,954)
Net loss	$ (18,331,479)	$ (9,555,601)
Net loss per share – basic and diluted	$ (0.55)	$ (0.34)
Weighted average common shares outstanding – basic and diluted	33,394,285	28,210,648

See accompanying notes to consolidated financial statements.

Cryoport, Inc. and Subsidiaries
Consolidated Statements of Comprehensive Loss

	Years Ended December 31,	
	2019	**2018**
Net loss	$ (18,331,479)	$ (9,555,601)
Other comprehensive income, net of tax:		
Net unrealized gain (loss) on available-for-sale debt securities	(27,952)	23,582
Reclassification of realized gain on available-for-sale debt securities to earnings	(23,188)	—
Foreign currency translation adjustments	2,936	(20,429)
Other comprehensive income (loss)	(48,204)	3,153
Total comprehensive loss	$ (18,379,683)	$ (9,552,448)

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

	Class A Preferred Stock		Class B Preferred Stock		Common Stock		Additional Paid–In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at December 31, 2017	—	$ —	—	$ —	25,701,924	$ 25,702	$ 149,293,947	$ (131,432,883)	$ —	$ 17,886,766
Net loss	—	—	—	—	—	—	—	(9,555,601)	—	(9,555,601)
Other comprehensive income, net of taxes	—	—	—	—	—	—	—	—	3,153	3,153
Stock-based compensation expense	—	—	—	—	—	—	5,408,625	—	—	5,408,625
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
Proceeds from ATM, net of costs of $44,202	—	—	—	—	248,839	248	3,362,908	—	—	3,363,156
Issuance of common stock, net of costs of $191,670	—	—	—	—	1,000,000	1,000	9,807,330	—	—	9,808,330
Issuance of common stock for board of director compensation	—	—	—	—	6,228	6	69,994	—	—	70,000
Proceeds from exercise of stock options and warrants	—	—	—	—	1,781,659	1,783	6,019,136	—	—	6,020,919
Balance at December 31, 2018	—	—	—	—	30,319,038	30,319	179,501,577	(140,988,484)	3,153	38,546,565
Net loss	—	—	—	—	—	—	—	(18,331,479)	—	(18,331,479)
Other comprehensive loss, net of taxes	—	—	—	—	—	—	—	—	(48,204)	(48,204)
Stock-based compensation expense	—	—	—	—	—	—	6,870,622	—	—	6,870,622
Accelerated stock-based compensation expense	—	—	—	—	—	—	9,561,884	—	—	9,561,884
Proceeds from public offering net of costs of $103,000	—	—	—	—	4,312,500	4,313	68,806,405	—	—	68,810,718
Issuance of common stock for convertible debt and accrued interest	—	—	—	—	1,172,305	1,172	15,416,328	—	—	15,417,500
Issuance of common stock for board of director compensation	—	—	—	—	5,753	6	90,994	—	—	91,000
Proceeds from exercise of stock options and warrants	—	—	—	—	1,530,191	1,530	5,361,212	—	—	5,362,742
Balance at December 31, 2019	—	$ —	—	$ —	37,339,787	$ 37,340	$ 285,609,022	$ (159,319,963)	$ (45,051)	$ 126,281,348

See accompanying notes to consolidated financial statements.

Cryoport, Inc. and Subsidiaries
Consolidated Statements of Cash Flows

	Years Ended December 31,	
	2019	**2018**
Cash Flows From Operating Activities:		
Net loss	$ (18,331,479)	$ (9,555,601)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	2,415,222	857,939
Amortization of debt discount	288,420	—
Interest expense on convertible note settled by issuance of common stock	417,500	—
Unrealized loss on investments in equity securities, net	101,674	16,233
Realized gain on Treasury notes and bills	(81,673)	—
Stock-based compensation expense	6,961,622	5,478,625
Accelerated stock-based compensation expense	9,561,884	—
Warrant inducement and repricing expense	—	899,410
Property and equipment disposal costs	274,439	397,467
Provision for bad debt	42,085	40,215
Changes in operating assets and liabilities, net of effects of acquisition:		
Accounts receivable	(3,596,610)	(1,958,405)
Inventories	(253,447)	(105,718)
Prepaid expenses and other current assets	(344,586)	(235,825)
Deposits	(86,462)	12,576
Change in operating lease right-of-use assets and lease liabilities	(6,300)	—
Accounts payable and other accrued expenses	570,477	405,074
Accrued compensation and related expenses	641,242	336,736
Deferred revenue	81,197	(7,129)
Deferred tax liability	20,935	—
Accrued interest	—	66,023
Net cash used in operating activities	(1,323,860)	(3,352,380)
Cash Flows From Investing Activities:		
Purchases of property and equipment	(5,335,841)	(2,914,029)
Purchases of short-term investments	(43,195,959)	(9,923,619)
Maturities of short-term investments	5,995,000	—
Patent and trademark costs	(73,608)	(46,574)
Cash paid for acquisition	(20,316,707)	—
Net cash used in investing activities	(62,927,115)	(12,884,222)
Cash Flows From Financing Activities:		
Proceeds from exercise of stock options and warrants	5,362,742	6,020,919
Proceeds from public offering, net of offering costs	68,810,718	—
Repayment of finance lease liabilities	(23,191)	(14,700)
Proceeds from issuance of convertible debt	—	15,000,000
Proceeds from issuance of common stock, net of costs	—	9,808,330
Proceeds from tender offer, net of offering costs	—	4,641,807
Proceeds from the ATM, net of offering costs	—	3,363,156
Payment of deferred financing costs	—	(288,420)
Net cash provided by financing activities	74,150,269	38,531,092
Effect of exchange rate changes on cash and cash equivalents	8,351	(9,554)
Net change in cash and cash equivalents	9,907,645	22,284,936
Cash and cash equivalents — beginning of year	37,327,125	15,042,189
Cash and cash equivalents — end of year	$ 47,234,770	$ 37,327,125
Supplemental Disclosure of Cash Flow Information:		
Cash paid for interest	$ 707,150	$ 637
Cash paid for income taxes	$ 13,888	$ 19,954
Supplemental Disclosure of Non-Cash Investing and Financing Activities:		

Net unrealized gain (loss) on available-for-sale debt securities	$ (27,952)	$ 23,582
Reclassification of realized gain on available-for-sale debt securities to earnings	$ 23,188	$ —
Fixed assets included in accounts payable and accrued liabilities	$ 260,641	$ —
Purchase of equipment through capital lease obligations	$ —	$ 71,047
Leasehold improvements paid by tenant allowance	$ —	$ 127,316
Common stock issued for conversion of debt and accrued interest	$ 15,417,500	$ —

See accompanying notes to consolidated financial statements.

Note 1. Nature of the Business

Cryoport, Inc. ("Cryoport") is the market-leading provider of temperature-controlled supply chain solutions to the life sciences industry through its platform of 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"). Cryogene operates a temperature-controlled biostorage solutions business in Houston, Texas (see Note 13). As a result of the Cryogene acquisition, the Company operates in two reportable segments: Global Logistics Solutions and Global Bioservices. See Note 11 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 2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP").

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 key 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 obligations and the convertible note. The carrying value for all such instruments, except finance lease obligations and the convertible note, approximates fair value at December 31, 2019 and 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 approximates its fair value at December 31, 2018. The convertible note was converted into shares of common stock of the Company in December 2019 (see Note 10).

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 December 31, 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 a limited number of 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 is 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 December 31, 2019, and 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 been in line with 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 December 31, 2019, there were two customers that accounted for 31.0% and 20.7%, 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 was no other single customer that owed us more than 10% of net accounts receivable at December 31, 2019 and 2018.

The Company has revenue from foreign customers primarily in Europe, Japan, Canada, India and Australia. During the years ended December 31, 2019 and 2018, the Company had revenues from foreign customers of approximately $5.1 million and $1.7 million, respectively, which constituted approximately 15.1% and 9.0%, respectively, of total revenues. There were two customers that accounted for 24.1% and 12.8% of revenues during the year ended December 31, 2019 and there was one customer that accounted for 18.2% of revenues during the year ended December 31, 2018. No other single customer generated over 10% of revenues during the years ended December 31, 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-out 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 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™ Condition Monitoring Systems and/or data loggers, comprise 20% and 34% of the Company's net property and equipment balance at December 31, 2019 and December 31, 2018, respectively, and 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 25% of the Company's net property and equipment balance at December 31, 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.

Capitalized Software

Capitalized software, which is included in property and equipment, net, consists of costs to develop internal use software, which the Company uses to provide various services to customers. The costs are capitalized from the time that the preliminary project stage is completed and considered probable that the software will be used to perform the function intended, until the time the software is placed in service for its intended use. Once this software is ready for use, these costs are amortized on a straight-line basis over the estimated useful life of the software, which is generally seven years. Capitalized software is reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If an impairment indicator is present, a recoverability analysis is performed based on estimated undiscounted cash flows to be generated from the software in the future. If the analysis indicates that the carrying value is not recoverable from future cash flows, the software cost is written down to the estimated fair value and an impairment is recognized. These estimates are subject to revision as market conditions and the Company's assessments change.

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 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 year ended December 31, 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 13).

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 year ended December 31, 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 December 31, 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 December 31, 2019 and 2018, there were no unrecognized tax benefits included in the accompanying consolidated balance sheets that would, if recognized, affect the effective tax rate.

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.

Additionally, the Company maintains a deferred tax liability related to indefinite-lived assets that have been netted against deferred tax assets that also allow for indefinite carryforward periods subject to limitations. The remaining taxable temporary difference cannot serve as a source for future taxable income to realize deferred tax assets, as the net deferred tax liability will not reverse until the assets are sold or impaired for financial reporting purposes. The Company's provision for income taxes primarily consists of state minimum and franchise 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 consolidated balance sheets at December 31, 2019 and 2018 and has not recognized interest and/or penalties in the consolidated statements of operations for the years ended December 31, 2019 and 2018. The Company is subject to taxation in the U.S., various state jurisdictions and in the Netherlands. As of December 31, 2019, the Company is no longer subject to U.S. federal examinations for years before 2016 and for California franchise and income tax examinations for years before 2015. 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. For shipment transactions, 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 consolidated statements of operations.

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

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 to 60 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

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 $367,900 and $66,300 at December 31, 2019 and 2018, respectively. During the year ended December 31, 2019, the Company recognized revenues of $66,300 from the related contract 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 master service 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 master service 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 master service 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 years ended December 31, 2019 and 2018:

	December 31,	
(000's omitted)	2019	2018
Global Logistics Solutions:		
Biopharmaceutical	$ 27,003	$ 16,477
Reproductive Medicine	2,914	2,173
Animal Health	996	976
Total Global Logistics Solutions	30,913	19,626
Global Bioservices	3,029	—
Total revenues	$ 33,942	$ 19,626

Our geographical revenues, by origin, for the years ended December 31, 2019 and 2018, were as follows:

	December 31,	
(000's omitted)	2019	2018
Americas	$ 28,801	$ 17,877
Europe, the Middle East and Africa (EMEA)	4,523	1,365
Asia Pacific (APAC)	618	384
Total revenues	$ 33,942	$ 19,626

Engineering and Development Expenses

Expenditures relating to engineering and development are expensed in the period incurred to engineering and development expense in the consolidated statements of operations.

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 expected term. The Company accounts for forfeitures of unvested awards as they occur.

The Company's stock-based compensation plans are discussed further in Note 15.

Equity Instruments Issued to Non-Employees for Acquiring Goods or Services

Issuances of the Company's common stock for acquiring goods or services are measured at the estimated fair value of the consideration received or the estimated fair value of the equity instruments issued, whichever is more reliably measurable. The measurement date for the estimated fair value of the equity instruments issued to consultants or vendors is determined at the earlier of (i) the date at which a commitment for performance to earn the equity instruments is reached (a "performance commitment" which would include a penalty considered to be of a magnitude that is a sufficiently large disincentive for nonperformance) or (ii) the date at which performance is complete. When it is appropriate for the Company to recognize the cost of a transaction during financial reporting periods prior to the measurement date, for purposes of recognition of costs during those periods, the equity instrument is measured at the then-current estimated fair values.

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:

	Years Ended December 31,	
	2019	**2018**
Net loss	$ (18,331,479)	$ (9,555,601)
Weighted average common shares outstanding - basic and diluted	33,394,285	28,210,648
Basic and diluted net loss per share	$ (0.55)	$ (0.34)

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:

	Years Ended December 31,	
	2019	**2018**
Stock Options	3,636,806	3,130,635
Warrants	753,211	1,329,594
Convertible Note	—	1,372,998
	4,390,017	5,833,227

Segment Reporting

We currently operate in two reportable segments and the chief operating decision maker is our Chief Executive Officer.

Foreign Currency Transactions

Management has determined that the functional currency of its subsidiaries is the local currency. Assets and liabilities of the Netherlands and United Kingdom 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 $2,900 and $(20,400) for the years ended December 31, 2019 and 2018, respectively. 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.

Comprehensive Loss

Comprehensive loss includes all changes in equity (net assets) during a period from non-owner sources. For the years ended December 31, 2019 and 2018, the components of comprehensive income (loss) consist of unrealized gains or losses on available-for-sale debt securities, reclassification of realized gains or losses on available-for-sale debt securities to earnings and foreign currency translation gains or losses.

Off Balance Sheet Arrangements

We do not currently have any off balance sheet arrangements.

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 a material impact on the Company's 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 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 $309,600 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 9.

Accounting Guidance Issued but Not Adopted at December 31, 2019

In January 2020, the FASB issued ASU 2020-01, "Investments—Equity Securities (Topic 321), Investments—Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815): Clarifying the Interactions between Topic 321, Topic 323, and Topic 815." The new guidance clarifies the interaction of accounting for the transition into and out of the equity method and the accounting for measuring certain purchased options and forward contracts to acquire investments. ASU 2020-01 is effective for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period. We are currently evaluating the impact of adopting this guidance.

In December 2019, the FASB issued ASU 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes," as part of its initiative to reduce complexity in the accounting standards. The amendments in ASU 2019-12 eliminate certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. ASU 2019-12 also clarifies and simplifies other aspects of the accounting for income taxes. ASU 2019-12 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. Early adoption is permitted, including adoption in any interim period. We are currently evaluating the impact of adopting this guidance.

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 will adopt this guidance on January 1, 2020. 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 will adopt this guidance on January 1, 2020. 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 U.S. GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information for credit loss estimates on certain types of financial instruments, including trade receivables. In addition, new disclosures are required. The ASU, as subsequently amended, is effective for fiscal years beginning after December 15, 2022 for smaller reporting companies, as defined by the SEC. As a smaller reporting company, we are currently evaluating the impact of adopting this guidance. The Company currently believes the main impact of the new standard will relate to the Company’s assessment of its allowance for doubtful accounts on trade receivables.

Note 3. Cash, Cash Equivalents and Short-Term Investments

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

	Carrying Value	
	2019	**2018**
Cash	$ 3,546,893	$ 37,223,698
Cash equivalents:		
Money market mutual fund	43,687,877	103,427
Total cash and cash equivalents	47,234,770	37,327,125
Short-term investments:		
U.S. Treasury notes and bills	21,094,100	7,925,975
Mutual funds	25,966,686	2,004,993
Total short-term investments	47,060,786	9,930,968
Cash, cash equivalents and short-term investments	$ 94,295,556	$ 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 December 31, 2019 were as follows:

	Amortized Cost	**Unrealized Gains**	**Unrealized Losses**	**Fair Value**
U.S. Treasury notes	21,121,659	26,552	(54,111)	21,094,100
Total available-for-sale investments	$ 21,121,659	$ 26,552	$ (54,111)	$ 21,094,100

There were no individual securities that have been in a continuous loss position of 12 months or greater as of December 31, 2019 .

The following table summarizes the fair value of available-for-sale investments based on stated contractual maturities as of December 31, 2019:

	Amortized Cost	Fair Value
Due within one year	$ 12,043,525	$ 12,046,700
Due between one and two years	9,078,134	9,047,400
Total	$ 21,121,659	$ 21,094,100

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 December 31, 2018:

	Amortized Cost	Fair Value
Due within one year	$ 5,913,327	$ 5,936,515
Due between one and two years	1,989,066	1,989,460
Total	$ 7,902,393	$ 7,925,975

As of 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. Based on our evaluation, we determined that our unrealized losses were not other-than-temporary at December 31, 2019 . 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 years ended December 31, 2019 and 2018, we had $81,700 and $0 realized gains on available-for-sale investments, respectively.

Equity Investments

We held investments in equity securities with readily determinable fair values of $26.0 million and $2.0 million at December 31, 2019 and 2018, respectively. These investments consist of mutual funds that invest primarily in tax free municipal bonds and treasury inflation protected securities.

Unrealized gains (losses) during 2019 and 2018 related to equity securities held at December 31, 2019 and 2018 are as follows:

	2019	2018
Net gains (losses) recognized during the year on equity securities	$ (101,674)	$ (16,233)
Less: net gains (losses) recognized during the year on equity securities sold during the year	—	—
Unrealized gains (losses) recognized during the year on equity securities still held at December 31, 2019 and 2018	$ (101,674)	$ 16,233

Note 4. 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 December 31, 2019 and 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
December 31, 2019				
Cash equivalents:				
Money market mutual fund	$ 43,687,877	$ —	$ —	$ 43,687,877
Marketable equity securities:				
Mutual funds	25,966,686	—	—	25,966,686
Available-for-sale debt securities:				
U.S. Treasury notes	21,094,100	—	—	21,094,100
	$ 90,748,663	$ —	$ —	$ 90,748,663

	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 December 31, 2019 and 2018.

Note 5. Inventories

Inventories consist of the following:

	December 31, 2019	December 31, 2018
Raw materials	$ 356,713	$ 123,528
Finished goods	117,248	96,986
	$ 473,961	$ 220,514

Note 6. Property and Equipment

Property and equipment consist of the following:

	December 31, 2019	December 31, 2018
Cryogenic shippers and data loggers	$ 4,295,719	$ 2,719,973
Freezers	3,414,319	—
Furniture and fixtures	291,331	148,002
Capitalized software	545,445	545,445
Computers and software	645,855	573,843
Machinery and equipment	1,092,526	567,506
Trucks and autos	37,000	—
Leasehold improvements	2,246,118	1,051,712
Fixed assets in process	3,406,377	1,374,906
	15,974,690	6,981,387
Less accumulated depreciation and amortization	(4,141,633)	(2,623,889)
	$ 11,833,057	$ 4,357,498

Total depreciation and amortization expense related to property and equipment amounted to $2.1 million and $857,900 for the years ended December 31, 2019 and 2018, respectively.

The Company leases equipment under finance leases, entered in 2018, with a total cost of $71,000 and accumulated amortization of $22,800 and $6,800 as of December 31, 2019 and 2018, respectively.

Note 7. Goodwill and Intangible Assets

Goodwill

During the year ended December 31, 2019, the Company recorded $11.0 million of goodwill which is related to the acquisition of Cryogene. See Note 13 for further information on this acquisition transaction. As of December 31, 2019, the carrying value of goodwill is $11.0 million which is allocated to the Global Bioservices reportable segment.

Intangible Assets

The following table presents our intangible assets as of December 31, 2019:

	Gross Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Amortization Period (years)
Non-compete agreement	$ 390,000	$ 45,500	$ 344,500	5
Technology	510,000	59,500	450,500	5
Customer relationships	3,900,000	189,583	3,710,417	12
Cryogene trade name/trademark	480,000	18,667	461,333	15
Cryoport patents and trademarks	258,203	47,375	210,828	—
Total	$ 5,538,203	$ 360,625	$ 5,177,578	

The following table presents our 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 years ended December 31, 2019 and 2018 was $313,300 and $0, respectively.

Expected future amortization of intangible assets as of December 31, 2019 is as follows:

Years Ending December 31,	Amount
2020	537,000
2021	537,000
2022	537,000
2023	537,000
2024	432,000
Thereafter	2,386,750
	$ 4,966,750

Note 8. Accrued Compensation and Related Expenses

Accrued compensation and related expenses consist of the following:

	December 31, 2019	December 31, 2018
Accrued salaries and wages	$ 1,385,887	$ 900,797
Accrued paid time off	517,833	361,681
	$ 1,903,720	$ 1,262,478

Note 9. Leases

The Company has operating and finance leases for corporate offices and certain equipment. These leases have remaining lease terms of one year to approximately nine years, some of which include options to extend the leases for multiple renewal periods of five years each. Under the terms of the facilities leases, the Company is required to pay its proportionate share of property taxes, insurance and normal maintenance costs. As of December 31, 2019 and 2018, assets recorded under finance leases were $71,000, and accumulated depreciation associated with finance leases was $22,800 and $6,800, respectively.

The components of lease cost were as follows:

	Year Ended December 31, 2019
Operating lease cost	$ 757,561
Finance lease cost:	
Amortization of right-of-use assets	$ 10,150
Interest on finance lease liabilities	2,749
	12,899
Total lease cost	$ 770,460

Other information related to leases was as follows:

Supplemental Cash Flows Information	Year Ended December 31, 2019
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	$ 759,868
Operating cash flows from finance leases	$ 2,749
Financing cash flows from finance leases	$ 23,191
Right-of-use assets obtained in exchange for lease liabilities:	
Operating leases	$ 3,164,950
Finance leases	$ —
Weighted-Average Remaining Lease Term	
Operating leases	6.8 years
Finance leases	1.3 years
Weighted-Average Discount Rate	
Operating leases	7.24%
Finance leases	6.0%

Future minimum lease payments under non-cancellable leases that have commenced as of December 31, 2019 were as follows:

Years Ending December 31,	Operating Leases	Finance Leases
2020	989,746	25,940
2021	996,349	8,647
2022	1,006,151	—
2023	674,731	—
2024	615,157	—
Thereafter	1,839,429	—
Total future minimum lease payments	6,121,563	34,587
Less imputed interest	(1,354,426)	(1,431)
Total	$ 4,767,137	$ 33,156

Reported as of December 31, 2019	Operating Leases	Finance Leases
Current lease liabilities	$ 665,901	$ 24,617
Noncurrent lease liabilities	4,101,236	8,539
Total	$ 4,767,137	$ 33,156

In the fourth quarter of 2019, the Company entered into an agreement to lease office space in Houston, Texas, which had not yet commenced as of December 31, 2019, with total minimum lease payments of $2.5 million over an initial term of 10 years. This lease commenced effective February 1, 2020.

Also, in the fourth quarter of 2019, the Company entered into an agreement to lease office space in Houston, Texas with total minimum lease payments of $944,400 over an initial term of nine years and one month. As of December 31, 2019, the lease had not yet commenced. This lease is expected to commence in May 2020, but may commence earlier if the lessor makes the space available for use earlier than scheduled.

In addition, in February 2020, the Company entered into an agreement to lease office space in Morris Plains, New Jersey with total minimum lease payments of $2.0 million over an initial term of seven years and seven months. This lease is expected to commence in May 2020, but may commence earlier if the lessor makes the space available for use earlier than scheduled.

Disclosures of future minimum lease payments and lease expense related to periods prior to adoption of the new lease standard (ASC 842)

Estimated annual future minimum payments related to the Company's leases were as follows at December 31, 2018:

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

Rent expense for the year ended December 31, 2018 was approximately $422,600.

Note 10. 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 was the senior unsecured obligation of the Company. The original maturity of the Note was December 14, 2023. The Note accrued 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 had 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 included a down round price protection feature which triggers upon the occurrence of a future event. 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 automatically converts into shares of Common Stock at the Conversion Price, subject to certain conditions.

At any time after June 14, 2019, the Company had 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) would automatically become due and payable at the applicable Redemption Premium.

The Note contained certain covenants and restrictions, including, among others, that, for so long as the Note was outstanding, the Company would 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 were 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 were originally amortized over the five-year stated life of 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 was reduced to 6.00%; (ii) after June 30, 2019, accrued interest on the Note was 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 was 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. We accounted for Amendment No. 1 to the Note as a modification of debt because the cash flows under the amended term loans were not substantially different than the cash flows under the original term loans. Accordingly, a new effective interest that equates the revised cash flows to the carrying amount of the original debt was computed and was being applied prospectively. We did not incur any fees to the Investor in connection with the amended term loan. The unamortized debt discount was being amortized over the remaining term of the Note using the effective interest method.

On December 14, 2019, the outstanding original principal under the Note of $15,000,000 and the accrued interest of $417,500 was converted into 1,172,305 shares of common stock of the Company as a result of a mandatory conversion under the terms of the Note. Pursuant to the terms of the Note, the outstanding principal converted into common stock of the Company at a rate of $13.11 per share and the accrued interest converted into common stock of the Company at a rate of approximately $14.837 per share, which was the average volume-weighted average price of the Company's common stock for the 15 consecutive trading days prior to the conversion date. During the year ended December 31, 2019, the Company amortized $288,420 of the debt discount to interest expense.

Interest expense was $1.1 million and $66,000 for the years ended December 31, 2019 and 2018, respectively. Included in accounts payable and other accrued expenses in the accompanying consolidated balance sheets is $0 and $66,000 of accrued interest as of December 31, 2019 and 2018, respectively.

Note 11. 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 13), 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 and therefore only the segment information for the year ended December 31, 2019 is disclosed.

Reportable segment information is presented in the following table:

	Year Ended December 31, 2019		
	Global Logistics Solutions	Global Bioservices	Total
Revenues	$ 30,913,345	$ 3,028,555	$ 33,941,900
Interest expense	(1,366,924)	—	(1,366,924)
Depreciation and amortization expense	(1,466,907)	(948,315)	(2,415,222)
Segment operating profit or loss	(18,112,163)	437,118	(17,675,045)
Other significant items:			
Segment assets	110,594,220	25,241,256	135,835,476
Goodwill	—	10,999,722	10,999,722
Expenditures for long-lived assets	(4,494,066)	(1,102,416)	(5,596,482)

Revenues from one customer of the Company's Global Bioservices segment represents approximately 80.2% of that segment's net revenues, however, it was less than 10% of the Company's consolidated net revenues for the year ended December 31, 2019.

Note 12. 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. We also lease a 4,190 square foot corporate facility in Brentwood, Tennessee under an operating lease expiring August 2024. The initial base rent is approximately $11,000 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. We record a loss contingency when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. We also disclose material contingencies when we believe a loss is not probable but reasonably possible. Accounting for contingencies requires us to use judgment related to both the likelihood of a loss and the estimate of the amount or range of loss. The outcomes of our legal proceedings are inherently unpredictable, subject to significant uncertainties, and could be material to our financial condition, results of operations, and cash flows for a particular period.

Indemnities and Guarantees

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

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

Note 13. 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 $20.3 million in cash.

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.

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 valuation analysis of the fair value of Cryogene's assets and liabilities. The following table summarizes the allocation of the purchase price as of the acquisition date:

Total purchase price	$ 20,316,707
Purchase price allocation:	
Property and equipment, net	4,257,340
Intangible assets	5,280,000
Deferred revenue	(220,355)
Goodwill	10,999,722
	$ 20,316,707

The following table summarizes the 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 $11.0 million 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.

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 consolidated financial statements from the acquisition date through December 31, 2019. Our results for the year ended December 31, 2019, include Cryogene sales of $3.0 million and net income of $437,100.

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 year ended December 31, 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.

		Year Ended December 31, 2018
Revenues	$	23,567,347
Net loss	$	(9,448,747)
Basic and diluted earnings per share	$	(0.33)

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 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 14. 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 Issuances For Services

During the year ended December 31, 2019, 5,753 shares of common stock with a fair value of $91,000 were issued to three members of the board of directors as compensation for services.

During the year ended December 31, 2018, 6,228 shares of common stock with a fair value of $70,000 were issued to two members of the board of directors as compensation for services.

Share Repurchase Program

In October 2019, the Company's Board of Directors authorized a share repurchase program (the "Repurchase Program") authorizing repurchase of common stock in the amount of up to $15.0 million from time to time, in amounts, at prices, and at such times as management deems appropriate and will depend on a number of factors, including the market price of Cryoport's common stock, general market and economic conditions, and applicable legal requirements. The repurchase program will expire on December 31, 2020 and may be extended, suspended, modified or discontinued at any time. Any repurchases will be funded from cash on hand and future cash flows from operations. The Company did not purchase any shares under this program in 2019.

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 "Public Offering Shares"). The Public Offering 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 Public Offering 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.

August 2018 "At the Market" Equity Offering Program

On August 24, 2018, we entered into a sales agreement (the "Sales Agreement") with Jefferies LLC ("Jefferies") under which we can sell up to an aggregate offering price of up to $35 million of the Company's common stock (the "Shares"), from time to time through an "at the market" equity offering program.

Under the Sales Agreement, the Company will set the parameters for the sale of the Shares, including the number of Shares to be issued, the time period during which sales are requested to be made, the limitation on the number of Shares that may be sold in any one trading day and any minimum price below which sales may not be made. Subject to the terms and conditions of the Sales Agreement, Jefferies, who will act as sales agent, may sell the Shares by methods deemed to be an "at the market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, including sales made directly on the Nasdaq Capital Market, or on any other existing trading market for the Shares, in negotiated transactions at market prices prevailing at the time of sale or at prices related to such prevailing market prices and/or any other method permitted by law. Jefferies will use its commercially reasonable efforts in conducting such sales activities consistent with its normal trading and sales practices, applicable state and federal laws, rules and regulations and the rules of The Nasdaq Stock Market LLC. The Sales Agreement may be terminated by the Company upon ten days' written notice to Jefferies for any reason. Jefferies may terminate the Sales Agreement upon ten days' written notice to the Company for any reason or at any time under certain circumstances, including but not limited to the occurrence of a material adverse change in the Company.

The Sales Agreement provides that Jefferies will be entitled to compensation for its services of 3.0% of the gross sales price of all Shares sold under the Sales Agreement. The Company has no obligation to sell any Shares under the Sales Agreement and may at any time suspend solicitation and offers under the Sales Agreement.

During the year ended December 31, 2018, the Company received net proceeds of $3.4 million through the sale of 248,839 shares of its common stock, after deducting sales commissions and other offering expenses of $44,200, that were offset against the proceeds from this offering. The Company did not sell any shares under this program in 2019.

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.

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 consolidated statement of operations for the year ended December 31, 2018. In connection with this offering, the Company incurred $99,400 in offering costs that were offset against the proceeds from this offering.

Common Stock Reserved for Future Issuance

As of December 31, 2019, approximately 7.7 million shares of common stock were issuable upon exercise of stock options and warrants, as follows:

Exercise of stock options	6,679,581
Exercise of warrants	1,001,028
Total shares of common stock reserved for future issuances	7,680,609

Note 15. Stock-Based Compensation

Warrants

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 various 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, 2017	5,141,112	$ 4.09		
Issued	—	—		
Exercised	(3,062,739)	3.58		
Expired	(28,839)	31.78		
Outstanding — December 31, 2018	2,049,534	$ 4.03		
Issued	—	—		
Exercised	(1,027,546)	3.95		
Expired	(20,960)	17.78		
Outstanding — December 31, 2019	1,001,028	$ 3.83	0.5	$ 12,644,200
Vested (exercisable) — December 31, 2019	1,001,028	$ 3.83	0.5	$ 12,644,200

(1) Aggregate intrinsic value represents the difference between the exercise price of the warrant and the closing market price of the Company's common stock on December 31, 2019, which was $16.46 per share.

The following table summarizes information with respect to warrants outstanding and exercisable at December 31, 2019:

Exercise Price	Number Outstanding	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price	Number Exercisable	Weighted-Average Exercise Price
$ 3.57	894,439	0.5	$ 3.57	894,439	$ 3.57
$ 6.00	106,589	0.2	$ 6.00	106,589	$ 6.00
	1,001,028			1,001,028	

During the year ended December 31, 2019, the Company issued 985,626 shares of common stock in connection with the exercise of warrants for proceeds of $3.4 million. In addition, during the year ended December 31, 2019, the Company issued 117,663 shares of common stock in connection with the cashless exercise of warrants to purchase 159,583 shares of common stock.

During the year ended December 31, 2018, the Company issued 1,179,784 shares of common stock in connection with the exercise of warrants for proceeds of $4.5 million. In addition, during the year ended December 31, 2018, the Company issued 155,886 shares of common stock in connection with the cashless exercise of warrants to purchase 302,567 shares of common stock.

The total intrinsic value of warrants exercised during the years ended December 31, 2019 and 2018 was $12.4 million and $21.5 million, respectively.

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 December 31, 2019, the Company had 2,653,409 shares available for future awards under the 2018 Plan.

During the years ended December 31, 2019 and 2018, 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 assumptions:

	December 31, 2019	December 31, 2018
Expected life (years)	5.2 – 6.2	5.3 – 7.0
Risk-free interest rate	1.42% - 2.57%	2.59% - 3.07%
Volatility	70.6% - 99.2%	97.7% - 110%
Dividend yield	0%	0%

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

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

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

	Year Ended December 31,	
	2019	2018
Cost of revenues	$ 1,479,448	$ 244,239
General and administrative	9,430,279	3,756,820
Sales and marketing	4,515,654	1,178,115
Engineering and development	1,098,125	299,451
	$ 16,523,506	$ 5,478,625

For the year ended December 31, 2019, we recognized expense of $9.6 million due to the accelerated vesting under the terms of certain outstanding stock option grants as a result of the Company meeting certain financial performance criteria defined in such grants. Of this amount, $383,800, $5.0 million, $3.4 million, and $873,000 are included in cost of revenues, general and administrative, sales and marketing, and engineering and development, respectively.

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, 2017	5,322,858	$ 4.16		
Granted (weighted-average fair value of $7.78 per share)	1,123,100	9.48		
Exercised	(445,989)	3.38		
Forfeited	(213,142)	6.79		
Expired	(29,522)	5.10		
Outstanding — December 31, 2018	5,757,305	$ 5.16		
Granted (weighted-average fair value of $13.55 per share)	1,544,850	13.55		
Exercised	(544,565)	3.91		
Forfeited	(78,009)	10.66		
Outstanding — December 31, 2019	6,679,581	$ 7.14	6.9	$ 62,681,100
Vested (exercisable) — December 31, 2019	5,895,891	$ 6.25	6.5	$ 60,273,300
Expected to vest after December 31, 2019 (unexercisable)	783,690	$ 13.78	9.3	$ 2,409,400

(1) Aggregate intrinsic value represents the difference between the exercise price of the option and the closing market price of the common stock on December 31, 2019, which was $16.46 per share.

The following table summarizes information with respect to stock options outstanding and exercisable at December 31, 2019:

Exercise Price	Number Outstanding	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price	Number Exercisable	Weighted-Average Exercise Price
$1.08 – 3.07	1,059,176	5.8	$ 2.27	1,059,176	$ 2.27
$3.18 – 3.44	977,670	5.7	$ 3.30	977,670	$ 3.30
$4.56 – 4.92	768,358	5.4	$ 4.77	768,358	$ 4.77
$5.00 – 7.67	855,328	5.6	$ 5.04	854,803	$ 5.04
$7.80 – 8.65	1,180,040	7.2	$ 8.32	1,109,650	$ 8.30
$9.29 – 12.79	1,271,242	9.0	$ 11.90	910,178	$ 11.74
$13.37 – 22.68	567,767	9.4	$ 16.05	216,056	$ 15.56
	6,679,581			5,895,891	

As of December 31, 2019, there was unrecognized compensation expense of $6.7 million related to unvested stock options, which we expect to recognize over a weighted average period of 2.0 years.

The total intrinsic value of options exercised during the years ended December 31, 2019 and 2018 was $6.5 million and $3.7 million, respectively.

Note 16. Income Taxes

Income (loss) before provision for income taxes was attributed to the following jurisdictions for the years ended December 31, 2019 and 2018:

	Years Ended December 31,	
	2019	2018
	(000's)	
United States	$ (18,321)	$ (9,233)
Foreign	51	(303)
	$ (18,270)	$ (9,536)

The provision for income taxes consists of the following for the years ended December 31, 2019 and 2018:

	Years Ended December 31,	
	2019	2018
Current:	(000's)	
Federal	$ —	$ —
State	41	20
Foreign	—	—
Total current expense	41	20
Deferred:		
Federal	(2,125)	(1,167)
State	5	(399)
Foreign	9	(60)
Change in valuation allowance	2,132	1,626
Total deferred expense	21	—
Total provision for income taxes	$ 62	$ 20

Significant components of the Company's deferred tax assets and liabilities as of December 31, 2019 and 2018 are shown below:

	December 31,	
	2019	2018
Deferred tax assets:	(000's)	
Net operating loss carryforward	$ 17,031	$ 16,272
Research credits	—	167
Expenses recognized for granting of options and warrants	3,816	2,566
Accrued expenses and reserves	383	83
Lease liability	1,217	—
Total deferred tax assets	22,447	19,088
Valuation allowance	(21,220)	(19,088)
	$ 1,227	$ —
Deferred tax liabilities:		
Goodwill	$ (110)	$ —
Right-of-use assets	(1,138)	—
Total deferred tax liability	(1,248)	—
Net deferred tax liability	$ (21)	$ —

The Company maintains a deferred tax liability in the amount of $20,900 related to indefinite-lived assets that have been netted against deferred tax assets that also allow for indefinite carryforward periods subject to limitations. The remaining taxable temporary difference cannot serve as a source of future taxable income to realize deferred tax assets, as the net deferred tax liability will not reverse until the assets are sold or impaired for financial reporting purposes.

The provision for income taxes differs from that computed using the federal statutory rate applied to loss before provision for income taxes as follows:

	December 31,	
	2019	2018
	(000's)	
Computed tax benefit at federal statutory rate	$ (3,837)	$ (2,002)
State tax, net of federal benefit	(610)	(348)
Stock compensation	1,465	472
Interest expense	286	—
Warrant inducement and repricing costs	—	189
Permanent differences and other	(126)	58
Contingencies	753	24
Valuation allowance	2,131	1,627
	$ 62	$ 20

At December 31, 2019, the Company has federal and state net operating loss carryforwards of approximately $58,171,000 and $51,188,000, respectively, which will begin to expire in 2020, unless previously utilized, and will expire in 2028 for state carryforwards. In addition, the Company has federal net operating losses of $9,004,000 generated after 2017 that can be carried over indefinitely and may be used to offset up to 80% of federal taxable income. At December 31, 2019, the Company has foreign net operating loss carryforwards of approximately $250,300, which begin to expire in 2027. At December 31, 2019, the Company has federal and California research and development tax credits of approximately $167,000 and $148,000, respectively. The federal research tax credit begins to expire in 2026 unless previously utilized and the California research tax credit has not expiration date.

Utilization of the net operating loss ("NOL") and research and development ("R&D") carryforwards might be subject to a substantial annual limitation due to ownership change limitations that may have occurred or that could occur in the future, as required by Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"), as well as similar state and foreign provisions. These ownership changes may limit the amount of NOL and R&D credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively. In general, an "ownership change" as defined by Section 382 of the Code results from a transaction or series of transactions over a three-year period resulting in an ownership change of more than 50 percentage points of the outstanding stock of a company by certain stockholders or public groups. Since the Company's formation, the Company has raised capital through the issuance of capital stock on several occasions which, combined with the purchasing stockholders' subsequent disposition of those shares, may have resulted in such an ownership change, or could result in an ownership change in the future upon subsequent disposition.

The Company has not completed a study to assess whether an ownership change has occurred. If the Company has experienced an ownership change, utilization of the NOL or R&D credit carryforwards would be subject to an annual limitation under Section 382 of the Code, which is determined by first multiplying the value of the Company's stock at the time of the ownership change by the applicable long-term, tax-exempt rate, and then could be subject to additional adjustments, as required. Any limitation may result in expiration of a portion of the NOL or R&D credit carryforwards before utilization. Further, until a study is completed and any limitation is known, no amounts are being considered as an uncertain tax position or disclosed as an unrecognized tax benefit. Due to the existence of the valuation allowance, future changes in the Company's unrecognized tax benefits will not impact its effective tax rate. Any carryforwards that will expire prior to utilization as a result of such limitations will be removed from deferred tax assets with a corresponding reduction of the valuation allowance.

A reconciliation of the beginning and ending amounts of unrecognized tax positions are as follows (in thousands):

	December 31,	
	2019	2018
Unrecognized tax positions, beginning of period	$ 48	$ 24
Gross increase – current period tax positions	239	27
Gross decrease – prior period tax positions	-	(2)
Gross increase – prior period tax positions	676	(1)
Expiration of statute of limitations	-	-
Unrecognized tax positions, end of period	$ 963	$ 48

If recognized, none of the unrecognized tax positions would impact the Company's income tax benefit or effective tax rate as long as the Company's deferred tax assets remain subject to a full valuation allowance. The Company does not expect any significant increases or decreases to the Company's unrecognized tax positions within the next 12 months.

The Company's practice is to recognize interest and penalties related to income tax matters in income tax expense. The Company had no accrual for interest and penalties on the Company's consolidated balance sheets and has not recognized interest and penalties in the consolidated statements of operations for the years ended December 31, 2019 and 2018.

Due to the NOL carryforwards, the U.S. federal and state returns are open to examination by the Internal Revenue Service and state jurisdictions for all years beginning with the year ended March 31, 2001.

Note 17. Subsequent Events

The Company has evaluated subsequent events through the filing date of this Annual Report on Form 10-K and determined that no subsequent events have occurred that would require recognition in the consolidated financial statements or disclosures in the notes thereto other than discussed in the accompanying notes.

Note 18. Quarterly Financial Data (Unaudited)

A summary of quarterly financial data is as follows ($ in '000's):

	Quarter Ended			
	March 31	**June 30**	**September 30**	**December 31**
Year ended December 31, 2019				
Total revenues	$ 6,653	$ 8,464	$ 9,583	$ 9,242
Gross margin	$ 3,454	$ 4,338	$ 4,627	$ 4,932
Loss from operations	$ (2,141)	$ (2,304)	$ (12,352)	$ (878)
Net loss	$ (2,387)	$ (2,528)	$ (12,469)	$ (948)
Net loss per share - basic and diluted	$ (0.08)	$ (0.08)	$ (0.35)	$ (0.03)
Year ended December 31, 2018				
Total revenues	$ 4,023	$ 4,627	$ 5,285	$ 5,691
Gross margin	$ 2,184	$ 2,504	$ 2,736	$ 2,816
Loss from operations	$ (1,798)	$ (2,465)	$ (2,161)	$ (2,220)
Net loss	$ (2,683)	$ (2,471)	$ (2,144)	$ (2,258)
Net loss per share - basic and diluted	$ (0.10)	$ (0.09)	$ (0.07)	$ (0.08)

Earnings per basic and diluted shares are computed independently for each of the quarters presented based on basic and diluted shares outstanding per quarter and, therefore, may not sum to the totals for the periods shown.

In the fourth quarter of 2019, management identified an error in the Company's historical interim financial statements for the third quarter of fiscal year 2019 relating to its stock-based compensation expense. Specifically, in the third quarter of 2019, the Company incorrectly recorded $1,227,890 of accelerated stock-based compensation expense for nonemployee directors who were not eligible for the accelerated vesting under their stock option awards. The error impacts only the previously issued historical interim financial statements for the third quarter of fiscal year 2019. The Company corrected the error in the fourth quarter of 2019, which resulted in a reduction of $765,099 of stock-based compensation expense included in general and administrative expense. The Company concluded the error is not material to the third and fourth quarter of 2019.

EXHIBIT 4.4

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

As of December 31, 2019, Cryoport, Inc. ("we," "us," "Cryoport" or the "Company") had the following classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): (i) common stock, $0.001 par value per share ("Common Stock"); (ii) warrants to purchase Common Stock at an exercise price of $3.30 per share (the "$3.30 Warrants"); and (iii) warrants to purchase Common Stock at an exercise price of $3.57 per share (the "$3.57 Warrants").

Our authorized capital consists of 100,000,000 shares of Common Stock and 2,500,000 shares of "blank check" preferred stock, $0.001 par value per share, of which we have designated 800,000 shares as Class A Preferred Stock and 585,000 shares as Class B Preferred Stock, none of which are currently issued and outstanding. The following description is a summary and is qualified in its entirety by our Amended and Restated Articles of Incorporation, as amended to date (the "Charter"), our Amended and Restated Bylaws, as currently in effect (the "Bylaws"), and the forms of warrant certificates relating to each of the $3.30 Warrants and the $3.57 Warrants, copies of which are referenced as exhibits to our Annual Report on Form 10-K for the year ended December 31, 2019, as well as the provisions of the Nevada Revised Statutes.

Common Stock

Subject to the preferential rights of any outstanding preferred stock, each holder of Common Stock is entitled to receive ratable dividends, if any, as may be declared by our board of directors out of funds legally available for the payment of dividends. No dividends on Common Stock have been declared or paid by the Company. The Company intends to employ all available funds for the development of its business and, accordingly, does not intend to pay any cash dividends in the foreseeable future.

Holders of Common Stock are entitled to one vote for each share held of record. There are no cumulative voting rights in the election of directors. Thus, the holders of more than 50% of the outstanding shares of Common Stock can elect all of our directors if they choose to do so.

The holders of our Common Stock have no preemptive, subscription, conversion or redemption rights. There are no sinking fund provisions applicable to the Common Stock. Upon our liquidation, dissolution or winding-up, the holders of our Common Stock are entitled to receive our assets pro rata.

$3.30 Warrants

The $3.30 Warrants were exercisable at an exercise price of $3.30 per share of Common Stock, subject to certain adjustments. The $3.30 Warrants were exercisable on or after February 25, 2010 and expired on February 24, 2015. As of December 31, 2019, there were no $3.30 Warrants outstanding.

$3.57 Warrants

The $3.57 Warrants are exercisable at an exercise price of $3.57 per share of Common Stock, subject to adjustment as described below. The $3.57 Warrants were exercisable upon issuance and expire on July 29, 2020. Each $3.57 Warrant will have a cashless exercise right in the event that the shares of Common Stock underlying such warrants are not covered by an effective registration statement at the time of such exercise.

The $3.57 Warrants provide that the exercise price is subject to adjustment from time to time if we (i) pay a stock dividend or otherwise make a distribution or distributions on shares of Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock, (ii) subdivide outstanding shares of Common Stock into a larger number of shares, (iii) combine (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares or (iv) issue by reclassification of shares of Common Stock any shares of our capital stock.

As of December 31, 2019, the Company had 894,439 $3.57 Warrants outstanding.

Nevada Anti-Takeover Law and Charter and Bylaws Provisions

Nevada Revised Statutes sections 78.378 to 78.3793 provide state regulation over the acquisition of a controlling interest in certain Nevada corporations unless the articles of incorporation or bylaws of the corporation provide that the provisions of these sections do not apply. This statute currently does not apply to our Company because in order to be applicable, we would need to have a specified number of Nevada residents as shareholders, and we would have to do business in Nevada directly or through an affiliate.

In addition, the Charter and Bylaws contain provisions that may make the acquisition of our company more difficult, including, but not limited to, the following:

- requiring at least 75% of outstanding voting stock in order to call a special meeting of stockholders;
- not allowing stockholders to take action by written consent in lieu of a meeting;
- setting forth specific procedures regarding how our stockholders may present proposals or nominate directors for election at stockholder meetings;
- requiring advance notice and duration of ownership requirements for stockholder proposals;
- permitting our board of directors to issue preferred stock without stockholder approval; and
- limiting the rights of stockholders to amend our bylaws.

Transfer Agent and Registrar for Common Stock

The transfer agent and registrar for our Common Stock is Continental Stock Transfer & Trust Company, Attn: Corporate Actions Department, 1 State Street, 30th Floor, New York, New York 10004-1561.

NASDAQ Capital Market

Our Common Stock and the $3.57 Warrants are currently traded on the Nasdaq Capital Market under the symbols “CYRX” and “CYRXW”, respectively.

EXHIBIT 21

CRYOPORT, INC.

SUBSIDIARIES OF REGISTRANT

Cryoport Systems, Inc.

Cryoport Netherlands B.V.

Cryoport UK Limited

Cryogene, Inc.

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-215776, 333-229395 and 333-230237 on Form S-3 and in Registration Statement Nos. 333-159899, 333-166327, 333-177168, 333-184543, 333-197437, 333-208381 and 333-225387 on Form S-8 of our report dated March 13, 2019, relating to the 2018 consolidated financial statements of Cryoport, Inc. and subsidiaries, appearing in this Annual Report on Form 10-K of Cryoport, Inc. for the year ended December 31, 2019.

/s/ KMJ Corbin & Company LLP

Costa Mesa, California
March 10, 2020

EXHIBIT 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements :

(1) Registration Statement (Form S-3 No. 333-230237, 333-229395 and 333-215776) of Cryoport, Inc.;

(2) Registration Statement (Form S-8 No. 333-225387) pertaining to the 2018 Omnibus Equity Incentive Plan;

(3) Registration Statement (Form S-8 No. 333-208381) pertaining to the 2015 Omnibus Equity Incentive Plan;

(4) Registration Statement (Form S-8 No. 333-177168, 333-184543, and 333-197437) pertaining to the 2011 Stock Incentive Plan;

(5) Registration Statement (Form S-8 No. 333-166327) pertaining to the 2002 Stock Incentive Plan and the 2009 Stock Incentive Plan;

(6) Registration Statement (Form S-8 No. 333-159899) pertaining to the Consulting Agreement;

of our reports dated March 10, 2020, with respect to the consolidated financial statements of Cryoport, Inc. and the effectiveness of internal control over financial reporting of Cryoport, Inc. included in this Annual Report (Form 10-K) of Cryoport, Inc. for the year ended December 31, 2019.

/s/ Ernst & Young LLP

Irvine, California
March 10, 2020

EXHIBIT 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER

I, Jerrell W. Shelton, certify that:

1. I have reviewed this Annual Report on Form 10-K of Cryoport, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: March 10, 2020

/s/ JERRELL W. SHELTON
JERRELL W. SHELTON
Chief Executive Officer and Director
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER

I, Robert S. Stefanovich, certify that:

1. I have reviewed this Annual Report on Form 10-K of Cryoport, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: March 10, 2020

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

EXHIBIT 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Cryoport, Inc. (the "Company"), hereby certifies, to such officer's knowledge, that:

(i) the accompanying Annual Report on Form 10-K of the Company for the year ended December 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 10, 2020

/s/ JERRELL W. SHELTON
Jerrell W. Shelton
Chief Executive Officer and Director

This certification accompanies this Report pursuant to Rule 13a-14(b) or Rule 15d-14(b) under the Securities Exchange Act of 1934, as amended, and 18 U.S.C. Section 1350 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

EXHIBIT 32.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Cryoport, Inc. (the "Company"), hereby certifies, to such officer's knowledge, that:

(i) the accompanying Annual Report on Form 10-K of the Company for the year ended December 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 10, 2020

/s/ ROBERT S. STEFANOVICH
Robert S. Stefanovich
Chief Financial Officer

This certification accompanies this Report pursuant to Rule 13a-14(b) or Rule 15d-14(b) under the Securities Exchange Act of 1934, as amended, and 18 U.S.C. Section 1350 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.