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

POST-EFFECTIVE AMENDMENT NO. 2
TO FORM S-1
ON FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

CRYOPORT, INC.

(Exact name of registrant as specified in its charter)

Nevada (State or other jurisdiction of incorporation or organization) 88-0313393 (I.R.S. Employer Identification Number)

17305 Daimler St. Irvine, CA 92614 (949) 470-2300

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Robert Stefanovich Chief Financial Officer Cryoport, Inc. 17305 Daimler St. Irvine, CA 92614 (949) 470-2300

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With a copy to:
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Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box: x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering:

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering:

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box:

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box:

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 "Non-accelerated filer "(Do not check if a smaller reporting company)

Accelerated filer "
Smaller reporting company x
Emerging growth company "

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. "

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EXPLANATORY NOTE

Cryoport, Inc. (the "Company," "Cryoport," "we" or "us") previously filed with the U.S. Securities and Exchange Commission (the "SEC") a Registration Statement on Form S-1 (File No. 333-203006), which was initially filed on March 25, 2015 and became effective on July 23, 2015 (the "Registration Statement"). The Registration Statement was previously amended pursuant to Post-Effective Amendment No. 1 to the Registration Statement, which was filed as a combined prospectus with the Registration Statement on Form S-1 (File No. 333-212364) initially filed on June 30, 2016 and became effective on August 10, 2016.

This Post-Effective Amendment No. 2 to Form S-1 on Form S-3 (this "Post-Effective Amendment No. 2") is being filed to (i) convert the Registration Statement on Form S-1 to Form S-3 and (ii) maintain the registration of 1,640,401 shares of the Company's common stock issuable upon the exercise of the remaining outstanding warrants originally registered pursuant to the Registration Statement (the "Registered Warrants"). This Post-Effective Amendment No. 2 is being filed in compliance with Section 10(a) (3) of the Securities Act of 1933, as amended (the "Securities Act").

No additional securities are being registered under this Post-Effective Amendment No. 2. All filing fees payable in connection with the registration of the securities described herein were previously paid by the Company in connection with the filings of the Registration Statements.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where this offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED AUGUST 23, 2017

PROSPECTUS



SCIENCE, LOGISTICS, CERTAINTY.

1,640,401 Shares of Common Stock Issuable Upon Exercise of Warrants

This prospectus relates to the issuance of up to 1,640,401 shares of our common stock, \$0.001 par value per share, issuable upon the exercise of outstanding warrants (the "Registered Warrants") originally issued on July 29, 2015 pursuant to the Registration Statement on Form S-1 (File No. 333-203006), as amended, which was initially filed with the Securities and Exchange Commission (the "SEC") on March 25, 2015 and became effective on July 23, 2015.

Our common stock and the Registered Warrants are currently traded on the NASDAQ Capital Market under the symbols "CYRX" and "CYRXW", respectively. As of August 18, 2017, the closing sale price of our common stock was \$7.75 per share and the closing price of the Registered Warrants was \$4.14 per warrant.

Investing in our securities involves significant risks. Prior to making an investment decision, you should carefully review the information under the heading "Risk Factors" beginning on page 8 of this prospectus.

Neither the SEC nor any state securities commission has approved or disapproved of the securities to be issued under this prospectus or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2017.

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ABOUT THIS PROSPECTUS

This prospectus is part of a post-effective amendment to Form S-1 on Form S-3 that we have filed with the SEC. From time to time, we may file one or more prospectus supplements to add, update or change information included in this prospectus.

You should read the entire prospectus and any prospectus supplement and any related issuer free writing prospectus, as well as the documents incorporated by reference into this prospectus or any prospectus supplement or any related issuer free writing prospectus, before making an investment decision. See "Where You Can Find More Information" and "Information Incorporated by Reference."

You should rely only on the information contained or incorporated by reference in this prospectus and any prospectus supplement or issuer free writing prospectus. No one has been authorized to provide you with information that is different from that contained or incorporated by reference in this prospectus, any accompanying prospectus supplement and any related issuer free writing prospectus in connection with the offering described herein, and, if given or made, such information or representations must not be relied upon as having been authorized by us. Neither this prospectus nor any prospectus supplement nor any related issuer free writing prospectus shall constitute an offer to sell or a solicitation of an offer to buy offered securities in any jurisdiction in which it is unlawful for such person to make such an offering or solicitation. This prospectus does not contain all of the information included in the registration statement that this prospectus forms a part of. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits.

Neither the delivery of this prospectus or any prospectus supplement or any issuer free writing prospectus nor any sale made hereunder shall under any circumstances imply that the information contained or incorporated by reference herein or in any prospectus supplement or issuer free writing prospectus is correct as of any date subsequent to the date hereof or of such prospectus supplement or issuer free writing prospectus, as applicable. You should assume that the information appearing in this prospectus, any prospectus supplement or any document incorporated by reference is accurate only as of the date of the applicable documents, regardless of the time of delivery of this prospectus or any sale of securities. Our business, financial condition, results of operations and prospects may have changed since that date.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information you should consider in making your investment decision. You should read this entire prospectus carefully (including the documents incorporated herein by reference), especially the section of this prospectus entitled "Risk Factors" beginning on page 9. In particular, we incorporate important business and financial information in this prospectus by reference. Cryoport, Inc. is referred to throughout this prospectus as "Cryoport," the "Company," "we" or "us."

General Overview

We provide cryogenic logistics solutions to the life sciences industry through a combination of proprietary packaging, information technology and specialized cold chain logistics knowhow. We view our solutions as disruptive to the "older technologies" of dry ice and liquid nitrogen, in that our solutions are comprehensive and combine our competencies in configurations that are customized to our client's requirements. We provide comprehensive, reliable, economic alternatives to all existing logistics solutions and services utilized for frozen shipping 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 cryogenic or frozen temperatures). As part of our services we provide the ability to monitor, record and archive crucial information for each shipment that can be used for scientific and regulatory purposes.

Our Cryoport Express® Solutions include a sophisticated cloud-based logistics operating platform, which is branded as the CryoportalTM. The CryoportalTM supports the management of the entire shipment and logistics process through a single interface, including initial order input, document preparation, customs clearance, courier management, shipment tracking, issue resolution, and delivery. In addition, it provides unique and incisive information dashboards and validation documentation for every shipment. The CryoportalTM records and retains a fully documented "chain-of-custody" and, at the client's option, "chain-of- condition" for every shipment, helping ensure that quality, safety, efficacy, and stability of shipped commodities are maintained throughout the process. This recorded and archived information allows our clients to meet exacting requirements necessary for scientific work and for proof of regulatory compliance during the logistics phase.

The branded packaging for our Cryoport Express® Solutions includes our liquid nitrogen dry vapor shippers, the Cryoport Express® Shippers. The Cryoport Express® Shippers are cost-effective and reusable cryogenic transport containers (our standard shipper is a patented vacuum flask) utilizing an innovative application of "dry vapor" liquid nitrogen ("LN2") technology. Cryoport Express® Shippers are International Air Transport Association ("IATA") certified and validated to maintain stable temperatures of minus 150° C and below for a 10-day dynamic shipment period. The Company currently features three Cryoport Express® Shippers: the Standard Dry Shipper (holding up to 75 2.0 ml vials), the High Volume Dry Shipper (holding up to 500 2.0 ml vials) and the recently introduced Cryoport Express® CXVC1 Shipper (holding up to 1,500 2.0 ml vials). In addition, we assist clients with internal secondary packaging (e.g., vials, canes, straws and plates).

Our most used solution is the "turnkey" solution, which can be accessed directly through our cloud-based CryoportalTM or by contacting Cryoport Client Care for order entry. Once an order is placed and cleared, we ship a fully charged Cryoport Express® Shipper to the client who conveniently loads its frozen commodity into the inner chamber of the Cryoport Express® Shipper. The customer then closes the shipper package and reseals the shipping box displaying the next recipient's address for pre-arranged carrier pick up. Cryoport arranges for the pick-up of the parcel by a shipping service provider, which is designated by the client or chosen by Cryoport, for delivery to the client's intended recipient. The recipient simply opens the shipper package and removes the frozen commodity that has been shipped. The recipient then reseals the package, displaying the nearest Cryoport Staging Center address, making it ready for pre-arranged carrier pick-up. When the Cryoport Staging Center receives the Cryoport Express® Shipper, it is cleaned, put through quality assurance testing, and returned to inventory for reuse.

In late 2012, we shifted our focus to become a comprehensive cryogenic logistics solutions provider. Recognizing that clients in the life sciences industry have varying requirements, we unbundled our technologies, established customer facing solutions and took a consultative approach to the market. Today, in addition to our standard "Turnkey Solution," described above, we also provide the following customer facing, value-added solutions to address our various clients' needs:

- · "Customer Staged Solution," designed for clients making 50 or more shipments per month. Under this solution, we supply an inventory of our Cryoport Express® Shippers to our customer, in an uncharged state, enabling our customer (after training/certification) to charge them with liquid nitrogen and use our Cryoportal™ to enter orders with shipping and delivery service providers for the transportation of the package.
- · "Customer Managed Solution," a limited customer implemented solution, whereby we supply our Cryoport Express® Shippers to clients in a fully charged state, but leaving it to the client to manage the shipping, including the selection of the shipping and delivery service provider and the return of the shipper to us.
- "powered by CryoportSM," available to providers of shipping and delivery services who seek to offer a "branded" cryogenic logistics solution as part of their service offerings, with "powered by Cryoport SM" appearing prominently on the offering software interface and packaging. This solution can also be private labeled upon meeting certain requirements, such as minimum required shipping volumes.
- "Integrated Solution," which is our total outsource solution. It is our most comprehensive solution and involves our management of the entire cryogenic logistics process for our client, including Cryoport employees at the client's site to manage the client's cryogenic logistics function in total.
- * "Regenerative Medicine Point-of-Care Repository Solution," designed for allogeneic therapies. In this solution we supply our Cryoport Express® Shipper to ship and store cryogenically preserved life science products for up to six days (or longer periods with supplementary shippers) at a point-of-care site, with the Cryoport Express® Shipper serving as a temporary freezer/repository enabling the efficient and effective distribution of temperature sensitive allogeneic cell-based therapies without the expense, inconvenience, and potential costly failure of an on-site, cryopreservation device.
- "Personalized Medicine and Cell-based Immunotherapy Solution," designed for autologous therapies. In this solution our Cryoport Express® Shipper serves as an enabling technology for the safe transportation of manufactured autologous cellular-based immunotherapy market by providing a comprehensive logistics solution for the verified chain of custody and condition transport from, (a) the collection of the patient's cells in a hospital setting, to (b) a central processing facility where they are manufactured into a personalized medicine, to (c) the safe, cryogenically preserved return of these irreplaceable cells to a point-of-care treatment facility. If required, the Cryoport Express® Shipper can then serve as a temporary freezer/repository to allow the efficient distribution of this personalized medicine to the patient when and where the medical provider needs it most without the expense, inconvenience, and potential costly failure of an on-site, cryopreservation device.

Cryoport is continuously expanding its solutions offerings in response to its customers' needs. In June 2016, Cryoport announced a new Laboratory Relocation Service, for transport of complete laboratories. The Laboratory Relocation Service manages the safe, secure and proper transportation of materials that are stored in labs as well as lab equipment and instruments. Relocation projects can range in size from the relocation of a fully equipped lab to the move of a single freezer.

Also in June 2016, Cryoport further broadened its capabilities and solutions offerings beyond cryogenic logistics and transportation services to include temperature-controlled storage solutions that include cGMP compliant biorepositories at controlled temperatures and climatized systems. Cryoport Biostorage services feature extensive management and monitoring, including controlled access to commodities, periodic temperature and activity reports, as well as 21 CFR, Part 11 compliant monitoring with 24/7/365 alarm response.

Our Corporate Information

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 17305 Daimler Street, Irvine, CA 92614. The telephone number of our principal executive offices is (949) 470-2300, and our main corporate website is www.cryoport.com.

The Company became public by 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 cold chain logistics solutions to the life sciences industry globally.

THE OFFERING

Securities we are offering pursuant to this Up to 1,640,401 shares of our common stock issuable upon exercise of the Registered Warrants.

prospectus

The exercise price of the Registered Warrants is \$3.57 per share. The Registered Warrants are currently exercisable and expire on

July 29, 2020.

Common stock outstanding prior to the

offering (1)

24,848,197 shares of our common stock

Common stock to be outstanding after the 26,488,598 shares of our common stock

offering (2)

Use of proceeds

We may receive up to approximately \$5.9 million in the aggregate from holders of Registered Warrants if they exercise in full, on a cash basis, the rights to purchase 1,640,401 shares of our common stock pursuant to the Registered Warrants. As we are unable to predict the timing or amount of potential exercises of the Registered Warrants, we have not allocated any proceeds of such exercises to any particular purpose. Accordingly, we currently intend to use any and all proceeds for working capital and other corporate purposes. See "Use of Proceeds" for additional information.

NASDAQ Capital Market

Our common stock and the Registered Warrants are currently traded on the NASDAQ Capital Market under the symbols "CYRX"

and "CYRXW", respectively.

Risk factors

Investing in our securities involves a high degree of risk. You should carefully read and consider the information set forth under the heading "Risk Factors" beginning on page 9 of this prospectus and all other information in this prospectus before investing in our

securities.

Based upon the total number of issued and outstanding shares as of August 18, 2017, excluding:

5,273,117 shares of common stock reserved for issuance upon the exercise of outstanding stock options;

5,909164 shares of common stock reserved for issuance upon the exercise of outstanding warrants with a weighted exercise price of \$4.05 per share; and

- 1,487,388 shares of common stock available for future grant under our Cryoport, Inc. 2015 Omnibus Equity Incentive Plan.
- (2) Based upon the total number of issued and outstanding shares as of August 18, 2017, including shares of our common stock issuable upon exercise of the Registered Warrants (assuming all of the Registered Warrants are exercised), but excluding:
 - 5,273,117 shares of common stock reserved for issuance upon the exercise of outstanding stock options; and
 - 4,268,763 shares of common stock reserved for issuance upon the exercise of outstanding warrants with a weighted exercise price of \$4.24 per share; and
 - 1,487,388 shares of common stock available for future grant under our Cryoport, Inc. 2015 Omnibus Equity Incentive Plan.

INFORMATION CONCERNING FORWARD-LOOKING STATEMENTS

This prospectus, any accompanying prospectus supplement, and the documents we incorporate by reference in this prospectus or any accompanying prospectus supplement, contain forward-looking statements. All statements other than statements of historical fact contained in this prospectus, including statements regarding our future results of operations and financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential," "continue," or the negative of these terms or other similar words. These statements are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. We discuss many of the risks in greater detail under the heading "Risk Factors." Also, these forward-looking statements represent our estimates and assumptions only as of the date of this prospectus. Forward-looking statements in this prospectus include, but are not necessarily limited to, those relating to:

- · our intention to introduce new products or services;
- our expectations about securing strategic relationships with global couriers or large clinical research organization;
- · our future capital needs;
- · results of our research and development efforts; and
- · approval of our patent applications.

Forward-looking statements are subject to risks and uncertainties, certain of which are beyond our control. Actual results could differ materially from those anticipated as a result of the factors described in "Risk Factors" in this prospectus and detailed in our other SEC filings, including among others:

- the effect of regulation by United States and foreign governmental agencies;
- research and development efforts, including delays in developing, or the failure to develop, our products;
- the development of competing or more effective products by other parties;
- · uncertainty of market acceptance of our products;
- · errors in business planning attributable to insufficient market size or segmentation data;
- · problems that we may face in manufacturing, marketing and distributing our products;
- problems that we may encounter in further development of Cryoport Express® Solutions, which includes the cloud-based logistics management software branded as CryoportalTM;
- · our inability to raise additional capital when needed;
- · delays in the issuance of, or the failure to obtain, patents for certain of our products and technologies;

- · problems with important suppliers and strategic business partners; and
- · difficulty or delays in establishing marketing relationships with international couriers.

Because of these risks and uncertainties, the forward-looking events and circumstances discussed in this prospectus might not transpire. Except for our ongoing obligations to disclose material information as required by the federal securities laws, we undertake no obligation to release publicly any revisions to any forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. All of the above factors are difficult to predict, contain uncertainties that may materially affect our actual results and may be beyond our control. New factors emerge from time to time, and it is not possible for our management to predict all of such factors or to assess the effect of each factor on our business. You are advised to consult any further disclosures we make on related subjects in the reports we file with the SEC.

This prospectus also contains estimates and other industry and statistical data developed by independent parties and by us relating to market size, growth, and segmentation of markets. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. While we believe the data referred to in this prospectus to be reliable, industry and statistical data is subject to variations and cannot be verified due to limits on the availability and reliability of data inputs, the voluntary nature of the data gathering process and other limitations and uncertainties inherent in any statistical survey. We have not independently verified these estimates generated by independent parties and contained in this prospectus. In addition, projections, assumptions, and estimates of our future performance and the future performance of the industries in which we operate are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors" and elsewhere in this prospectus. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us

RISK FACTORS

An investment in our securities involves a high degree of risk. Before making an investment decision, you should consider carefully the risks described under the heading "Risk Factors" in our Transition Report on Form 10-K for the nine months ended December 31, 2016 (together with any changes thereto contained in subsequently filed Quarterly Reports on Form 10-Q) and those contained in our other filings with the SEC, which are incorporated by reference in this prospectus and any accompanying prospectus supplement. Our business, prospects, financial condition, or operating results could be harmed by any of these risks, as well as other risks not currently known to us or that we currently consider immaterial. The trading price of our securities could decline due to any of these risks, and, as a result, you may lose all or part of your investment.

Risks Relating to Prior Securities Issuances

Issuances of our securities are subject to federal and state securities laws, and certain holders of common stock issued by us may be entitled to rescission.

Issuances of securities are subject to federal and state securities laws. Between August 1, 2017 and August 17, 2017, we issued an aggregate of 158,234 shares of common stock (the "Warrant Shares") upon the exercise of the Registered Warrants by certain holders of such warrants at an exercise price of \$3.57 per share. During such period, our Registration Statement on Form S-1 (File No. 333-203006) to register the common stock issuable upon exercise of the Registered Warrants was not "current" because the registration statement had not been amended to include our most recent audited financial statements. As a result, the sales of the Warrant Shares upon exercise of the Registered Warrants were not registered under federal and state securities laws. Consequently, the holders of Registered Warrants who purchased the Warrant Shares may seek to rescind the sales, in which case we could be liable for rescission payments to them in the amount of their aggregate original purchase price plus applicable interest. If one or more holders were to successfully seek such rescission or prevail in any such suit, our financial condition and results of operations may be adversely affected. As of the date hereof, we have not received any claims for rescission or damages or claims relating to any other liability stemming from our issuance of the Warrant Shares.

USE OF PROCEEDS

We may receive up to approximately \$5.9 million in the aggregate from holders of Registered Warrants if they exercise in full, on a cash basis, the rights to purchase 1,640,401 shares of our common stock pursuant to the Registered Warrants. As we are unable to predict the timing or amount of potential exercises of the Registered Warrants, we have not allocated any proceeds of such exercises to any particular purpose. Accordingly, we currently intend to use any and all proceeds for working capital and other corporate purposes.

It is possible that the Registered Warrants may expire and may never be exercised. In addition, if a cashless exercise is utilized, we would not receive any proceeds from the exercise of such warrant.

DILUTION

Our net tangible book value as of June 30, 2017 was approximately \$15.0 million, or \$0.63 per share of our common stock. We calculate net tangible book value per share by calculating the difference between the total assets less intangible assets and total liabilities, and dividing the result by the number of shares of common stock outstanding.

Assuming that we issue 1,640,401 shares of common stock upon the exercise of the Registered Warrants at an exercise price of \$3.57 per share, our pro forma net tangible book value as of June 30, 2017 would have been approximately \$20.8 million, or \$0.81 per share of our common stock. This amount represents an immediate increase in pro forma net tangible book value of \$0.19 per share to our existing stockholders and an immediate dilution in pro forma net tangible book value of \$2.76 per share to holders of Registered Warrants exercising such warrants to purchase shares of our common stock. The following table illustrates this per share dilution in pro forma net tangible book value with respect to the issuance of our common stock upon exercise of the Registered Warrants, after giving effect to the sale by us of 1,640,401 shares of our common stock upon the exercise of the Registered Warrants at an exercise price of \$3.57 per share and the application of the estimated net proceeds to us in this offering as described under "Use of Proceeds."

Exercise price per Registered Warrant		\$	3.57
Net tangible book value per share as of June 30, 2017	\$	0.63	
Increase in pro forma net tangible book value per share attributable to exercise of the Registered Warrants	\$	0.19	
Pro forma net tangible book value per share after giving effect to exercise of the Registered Warrants		\$	(0.81)
Dilution in pro forma net tangible book value per share to holders of Registered Warrants			2.76

The above table excludes an aggregate of up to 9,641,880 additional shares of common stock reserved and available for future issuance (i) upon the exercise of all outstanding stock options and warrants to purchase common stock (other than the Registered Warrants) and (ii) under the Cryoport, Inc. 2015 Omnibus Equity Incentive Plan.

PLAN OF DISTRIBUTION

Issuance of Shares Underlying the Registered Warrants

The shares of our common stock underlying the Registered Warrants are being offered and sold directly by us, without an underwriter, and the holders of the Registered Warrants may purchase the shares of our common stock directly from us by exercising their outstanding Registered Warrants.

We will bear all costs, expenses and fees in connection with the registration and issuance of the common stock issuable upon exercise of the Registered Warrants. We will not pay any compensation in connection with the issuance of the shares of common stock upon exercise of the Registered Warrants, except any compensation due to the warrant agent for the Registered Warrants. We will not bear any of the brokerage commissions, selling expenses or similar costs related to any resales of the common stock issuable upon exercise of the Registered Warrants.

DESCRIPTION OF SECURITIES

Our authorized capital consists of 50,000,000 shares of common stock, \$0.001 par value per share, of which 24,848,197 shares of common stock were issued and outstanding as of August 18, 2017, and 2,500,000 shares of "blank check" preferred stock, \$0.001 par value per share, none of which were issued and outstanding as of such date. The following description is a summary and is qualified in its entirety by our Amended and Restated Articles of Incorporation, as amended to date, and our Amended and Restated Bylaws, as currently in effect, copies of which are referenced as exhibits herein, and 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. As of the date of this prospectus, 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. Upon our liquidation, dissolution or winding-up, the holders of our common stock are entitled to receive our assets pro rata.

Preferred Stock

Our board of directors is empowered, without further action by stockholders, to issue from time to time one or more series of preferred stock, with such designations, rights, preferences and limitations as the board of directors may determine by resolution. The rights, preferences and limitations of separate series of preferred stock may differ with respect to such matters among such series as may be determined by our board of directors, including, without limitation, the rate of dividends, method and nature of payment of dividends, terms of redemption, amounts payable on liquidation, sinking fund provisions (if any), conversion rights (if any) and voting rights. Certain issuances of preferred stock may have the effect of delaying or preventing a change in control of our company that some stockholders may believe is not in their interest.

Registered Warrants

In July 2015, we conducted a firm commitment public offering of 2,090,750 units. Each unit consisted of (i) one share of our common stock and (ii) one warrant to purchase one share of our common stock at an exercise price of \$3.57, which we refer to as a "Registered Warrant." The common stock and Registered Warrants were immediately separated and issued separately. The Registered Warrants 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.

As of the date of this prospectus, 1,640,401 shares of common stock remain issuable upon the exercise of the Registered Warrants, which expire on July 29, 2020. The exercise price and the number of shares of common stock purchasable upon the exercise of each Registered Warrant are subject to adjustment upon the happening of certain events, including if we (i) pay a stock dividend or otherwise make a distribution or distributions on shares of our 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 the common stock any shares of our capital stock. For example, if we were to conduct a 4-for-1 stock split such that each outstanding share became four shares of common stock, the exercise price of the Registered Warrant would be reduced to one-quarter of the exercise price in effect immediately prior to the stock split and the number of shares acquirable upon a subsequent exercise of the warrant shall be multiplied by four.

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, our Amended and Restated Articles of Incorporation and Amended and Restated 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.

Warrant Agent for Registered Warrants

The warrant agent for the Registered Warrants is Continental Stock Transfer & Trust Company.

NASDAQ Capital Market

Our common stock and the Registered Warrants are currently traded on the NASDAQ Capital Market under the symbols "CYRXV" and "CYRXW", respectively.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus are being passed upon for us by Snell & Wilmer L.L.P., Costa Mesa, California.

EXPERTS

The consolidated financial statements of the Cryoport, Inc. and its subsidiary as of December 31, 2016 and March 31, 2016 and for the nine month period ended December 31, 2016 and the year ended March 31, 2016, appearing in Cryoport, Inc.'s Transition Report on Form 10-K, have been audited by KMJ Corbin & Company LLP, an independent registered public accounting firm, as stated in their report (which report expresses an unqualified opinion and includes an explanatory paragraph regarding Cryoport, Inc.'s ability to continue as a going concern) incorporated by reference herein, and have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. We have also filed a registration statement on Form S-1, including exhibits, under the Securities Act with respect to the securities offered by this prospectus. This prospectus is part of the registration statement, but does not contain all of the information included in the registration statement or the exhibits. You may read and copy the registration statement and any other document that we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our SEC filings are also available to the public on the internet at a website maintained by the SEC located at http://www.sec.gov.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" information into this document. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be a part of this document, except for any information superseded by information that is included directly in this document or incorporated by reference subsequent to the date of this document.

This prospectus incorporates by reference the documents listed below and any future filings that we make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (other than current reports on Form 8-K furnished under Item 2.02 or Item 7.01 and exhibits filed on such form that are related to such items), until all the securities offered under this prospectus are sold.

- · Our Transition Report on Form 10-K for the transition period from April 1, 2016 to December 31, 2016, filed with the SEC on March 13, 2017;
- Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017 and June 30, 2017, filed with the SEC on May 4, 2017 and August 9, 2017, respectively;
- · Our Current Reports on Form 8-K, filed with the SEC on March 31, 2017 and May 31, 2017 (in each case, not including any information furnished under Items 2.02 or 7.01 of Form 8-K, including the related exhibits, which information is not incorporated by reference herein);
- Our definitive proxy statement on Schedule 14A filed with the SEC on August 11, 2017; and
- The description of our common stock and the Registered Warrants contained in our Registration Statement on Form 8-A, filed with the SEC on July 22, 2015, and any other amendment or report filed for the purposes of updating such descriptions.

Documents incorporated by reference are available from the SEC as described above or from us without charge, excluding any exhibits to those documents unless the exhibit is specifically incorporated by reference as an exhibit in this document. You can obtain documents incorporated by reference in this document by requesting them in writing or by telephone at the following address:

Cryoport, Inc. 17305 Daimler St. Irvine, CA 92614 Attn: Chief Financial Officer (949) 470-2300

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the expenses to be borne by the registrant in connection with the issuance and distribution of the securities registered hereby. Other than the SEC registration fee, all of the amounts below are estimates.

Securities and Exchange Commission registration fee	\$ 831*
Accounting fees and expenses	\$ 2,500
Legal fees and expenses	\$ 10,000
Miscellaneous expenses	\$ -
	_
Total	\$ 13,331

^{*} Previously paid in connection with the filing of the Registration Statement (File No. 333-203006).

Item 15. Indemnification of Directors and Officers.

Under the Nevada Revised Statutes and our Amended and Restated Articles of Incorporation, as amended, our directors will have no personal liability to us or our stockholders for monetary damages incurred as the result of the breach or alleged breach by a director of his "duty of care." This provision does not apply to the directors' (i) acts or omissions that involve intentional misconduct or a knowing and culpable violation of law, (ii) acts or omissions that a director believes to be contrary to the best interests of the corporation or its stockholders or that involve the absence of good faith on the part of the director, (iii) approval of any transaction from which a director derives an improper personal benefit, (iv) acts or omissions that show a reckless disregard for the director's duty to the corporation or its stockholders in circumstances in which the director was aware, or should have been aware, in the ordinary course of performing a director's duties, of a risk of serious injury to the corporation or its stockholders, (v) acts or omissions that constituted an unexcused pattern of inattention that amounts to an abdication of the director's duty to the corporation or its stockholders, or (vi) approval of an unlawful dividend, distribution, stock repurchase or redemption. This provision would generally absolve directors of personal liability for negligence in the performance of duties, including gross negligence.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Item 16. Exhibits

See Exhibit Index following the signature page.

Item 17. Undertakings.

- (a) The undersigned registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
 - (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
- (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
- (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date;

- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned Registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Irvine, California on this 23rd day of August, 2017.

CRYOPORT, INC.

/s/ Robert Stefanovich
Name: Robert Stefanovich
Title: Chief Financial Officer

POWER OF ATTORNEY

The officers and directors of Cryoport, Inc. whose signatures appear below, hereby constitute and appoint Jerrell W. Shelton and Robert Stefanovich, and each of them severally, their true and lawful attorney-in-fact and agent, with full power of substitution, with power to act alone, to sign and execute on behalf of the undersigned any and all amendments to this registration statement, including post-effective amendments, and each of the undersigned does hereby ratify and confirm all that said attorney-in-fact and agent, or his substitutes, shall do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Jerrell W. Shelton	Chairman, President and Chief Executive Officer	August 23, 2017
Jerrell W. Shelton	(Principal Executive Officer)	
/s/ Robert S. Stefanovich	Chief Financial Officer, Treasurer and Corporate Secretary	August 23, 2017
Robert S. Stefanovich	(Principal Financial Officer; Principal Accounting Officer)	
/s/ Richard J. Berman	Director	August 23, 2017
Richard J. Berman	_	
/s/ Robert Hariri	Director	August 23, 2017
Robert Hariri, M.D., Ph.D.	_	
/s/ Ramkumar Mandalam	Director	August 23, 2017
Ramkumar Mandalam, Ph.D.	_	
/s/ Edward J. Zecchini	Director	August 23, 2017
Edward J. Zecchini	_	

INDEX OF EXHIBITS

Exhibit No.	Description		
4.1	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.		
4.2	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.		
4.3	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.		
4.4	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.		
4.5	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.		
4.6	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.		
4.7	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.		
4.8	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.		
4.9	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.		
4.10	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.		
4.11	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.		
4.12	Cryoport, Inc. Stock Certificate Specimen. Incorporated by reference to Cryoport's Registration Statement on Form 10-SB/A4 filed with the SEC on October 20, 2005.		
4.13	Form of Warrant Agreement relating to the Registered Warrants (including the Form of Registered Warrant certificate issued in connection with public offering of Units), by and between the Company and Continental Stock Transfer & Trust Company. Incorporated by reference to Exhibit 4.28 of the Company's Amendment No. 4 to Registration Statement on Form S-1 dated June 22, 2015.		

Exhibit No. Description		
5.1		Legal Opinion of Snell & Wilmer L.L.P. Incorporated by reference to Exhibit 5.1 of the Company's Amendment No. 1 to Registration Statement on Form S-1 dated August 8, 2016.
23.1+		Consent of KMJ Corbin & Company LLP, Independent Registered Public Accounting Firm.
23.2		Consent of Snell & Wilmer L.L.P. (included in Exhibit 5.1).
24.1		Power of Attorney (included as part of the signature page to this registration statement).
+	Filed herewith.	

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Post-Effective Amendment No. 2 to Form S-1 on Form S-3 of Cryoport, Inc. of our report dated March 13, 2017 (which includes an explanatory paragraph regarding Cryoport, Inc.'s ability to continue as a going concern), relating to the consolidated financial statements of Cryoport, Inc. and subsidiary as of December 31, 2016 and March 31, 2016, and for the nine month period ended December 31, 2016 and the year ended March 31, 2016 appearing in the Transition Report on Form 10-K of Cryoport, Inc. for the nine month period ended December 31, 2016.

We also consent to the reference to us under the heading "Experts" in the prospectus, which is part of such registration statement.

/s/KMJ Corbin & Company LLP

Costa Mesa, California August 22, 2017