Cryoport, Inc. 17305 Daimler St. Irvine, CA 92614

August 30, 2016

VIA EDGAR

Mr. Perry J. Hindin, Special Counsel Office of Mergers and Acquisitions Division of Corporation Finance United States Securities and Exchange Commission 100 F Street, N.E. Washington, D.C. 20549-3628

Re: Cryoport, Inc.

Schedule TO-I (File No. 005-85385) Registration Statement on Form S-4 (File No. 333-213091) Preliminary Proxy Statement on Schedule 14A (File No. 001-34632) Filed August 11, 2016

Dear Mr. Hindin:

Cryoport, Inc. (the "Company") is submitting this letter in response to the written comments of the staff (the "Staff") of the Securities and Exchange Commission (the "Commission"), dated August 26, 2016, with respect to the Company's Schedule TO-I (the "SC TO-I") (File No. 005-85385), Registration Statement on Form S-4 (the "S-4") (File No. 333-213091) and Preliminary Proxy Statement on Schedule 14A (the "Preliminary Proxy Statement") (File No. 001-34632), each filed with the Commission on August 11, 2016.

Set forth below is the heading and text of each comment followed by the Company's response.

Schedule TO-I

1. Please confirm that the prospectus includes all disclosure currently found in the Schedule TO. As an example, refer to the disclosure contained in Items 2 through 5 and 11 of the Schedule TO. See Exchange Act Rule 13e-4(b) and (e)(2).

Response:

The Company confirms that the prospectus included in Amendment No. 1 to the S-4 includes all disclosure currently found in the Schedule TO, as amended. In addition, the Company has added the following disclosure on page 22 of Amendment No. 1 to the S-4:

"The Company previously appointed the Depositary as the warrant agent for the Original Warrants in connection with the original issuance thereof, on July 29, 2015, pursuant to a warrant agreement with the Depositary. In connection with the Offer, the Company has also engaged the Depositary as the warrant agent for the Supplemental Warrants. The Depositary will receive reasonable and customary compensation for its services in connection with the Offer."

Registration Statement on Form S-4

General

- 2. We note disclosure throughout the prospectus indicating that if the aggregate number of New Warrant Shares to be issued for all holders participating in the offer is greater than the Nasdaq Limit, then each of the participating holder's number of Original Warrants tendered will be reduced on as close to a pro rata basis as is possible.
 - Please advise us regarding the Company's intent to comply with Exchange Act Rule 13e-4(e)(3)(ii), 13e-4(f)(1)(ii) and 14e-1(b) should stockholder approval of the Offer not be obtained.

Response:

The Company advises the Staff that, should stockholder approval of the offer not be obtained, the Company intends to fully comply with Exchange Act Rule 13e-4(e) (3)(ii), 13e-4(f)(1)(ii) and 14e-1(b). In addition, the Company has added the following disclosure on page 16 of Amendment No. 1 to the S-4:

"If stockholder approval of the Offer is not obtained, we will (i) promptly disclose this information in a manner reasonably calculated to inform the holders of the Original Warrants and (ii) extend the Expiration Date by at least ten business days from the date of the dissemination of this information to the holders of the Original Warrants. See "—Nasdaq Listing Rule 5635(d) and Maximum Number of New Warrant Shares Which may be Issued" for additional information."

Please also provide us an analysis as to how you will comply with Section 5 of the Securities Act with respect to the issuance of "new replacement warrants" to holders of Original Warrants. Please also advise why it is necessary to replace such Original Warrants as opposed to returning such unaccepted Original Warrants to holders.

Response:

The Company advises the Staff that the references to the issuance of "new replacement warrants" to holders of Original Warrants were not meant to refer to the issuance of new securities to such holders. Rather, the Company was referring to the issuance of new warrant certificates representing the unaccepted Original Warrants

For example, a holder owns 1,000,000 Original Warrants and properly tenders the 1,000,000 Original Warrants in accordance with the terms and conditions of the Offer (including delivering the holder's warrant certificate representing the 1,000,000 Original Warrants). Now assume that there is a pro rata reduction resulting in only 800,000 of such holder's Original Warrants being accepted by the Company pursuant to the Offer. Promptly following the Expiration Date, the Company would cause to be delivered to such holder a new warrant certificate representing the 200,000 Original Warrants not accepted in the Offer (along with a check for any payment submitted relating to the tender of the 200,000 Original Warrants).

However, the Company respectfully acknowledges the Staff's comment and has revised the disclosure on the cover page and pages 4, 5, 13 and 15 of Amendment No. 1 to the S-4.

3. We note that the Original Warrants currently trade on the NASDAQ Capital Market. Please provide an analysis explaining the basis upon which you have concluded that the purchase of this series of securities is not subject to Exchange Act Rule 13e-3. Refer to Question 104.01 of the of the Division of Corporation Finance's Compliance and Disclosure Interpretations for Going Private Transactions, Exchange Act Rule 13e-3 and Schedule 13E-3 dated January 26, 2009.

Response:

The Company advises the Staff that it has concluded that the purchase of the series of securities is not subject to Exchange Act Rule 13e-3 because the purchase does not have the effects described in paragraph (a)(3)(ii) of Rule 13e-3, which include:

- A. Causing any class of equity securities of the issuer which is subject to Section 12(g) or Section 15(d) of the Act to become eligible for termination of registration under Rule 12g-4 or Rule 12h-6, or causing the reporting obligations with respect to such class to become eligible for termination under Rule 12h-6; or suspension under Rule 12h-3 or section 15(d); or
- B. Causing any class of equity securities of the issuer which is either listed on a national securities exchange or authorized to be quoted in an interdealer quotation system of a registered national securities association to be neither listed on any national securities exchange nor authorized to be quoted on an inter-dealer quotation system of any registered national securities association.

Rule 13e-3(a)(3)(ii)(A) applies where a transaction causes a class of equity securities that is subject to Section 12(g) or Section 15(d) of the Act to be held of record by less than 300 persons. Rule 13e-3(a)(3)(ii)(A) is inapplicable to the Company because, prior to the Offer, the Original Warrants were already held of record by less than 300 persons, thus making it impossible for the Offer to "cause" the Original Warrants to be held of record by less than 300 persons.

Rule 13e-3(a)(3)(ii)(B) is inapplicable because the Offer will not cause the Original Warrants to cease being listed on the NASDAQ Capital Market. For continued listing of warrants on the NASDAQ Capital Market, (a) the underlying security must remain listed on NASDAQ or be a covered security, and (b) there must be at least two registered and active market makers, one of which may be a market maker entering a stabilizing bid, as provided in NASDAQ Listing Rule 5560. Since the Offer will not affect the listing of the Company's common stock nor change the number of registered and active market makers, the Offer will not cause the Original Warrants to cease being listed on the NASDAQ Capital Market.

Accordingly, since the Offer does not have a reasonable likelihood nor the purpose of producing any of the effects specified in Rule 13e-3(a)(3)(ii), the Offer does not constitute a Rule 13e-3 transaction.

The Exchange Offer

Terms of the New Warrants, page 13

4. Please revise the statement that the summary of terms is not complete. While disclosure may include appropriate disclaimers concerning the nature of a summary generally, it must be complete in describing all material provisions. This comment also applies to the qualification with respect to the material terms of the Supplemental Warrants.

Response:

The Company respectfully acknowledges the Staff's comment and has revised the requested disclosure on page 14 of Amendment No. 1 to the S-4.

Extension of the Offer and Exercise Period; Amendments; Termination, page 15

5. Please clarify that if a material change occurs in the information published, sent or given to security holders, the issuer will disseminate "promptly" disclosure of the change consistent with Rule 13e-4(d)(2) and 13e-4(e)(3).

Response:

The Company respectfully acknowledges the Staff's comment and has added the requested clarifying disclosure on page 16 of Amendment No. 1 to the S-4.

Incorporation of Certain Information by Reference, page 28

6. We note the statement that you attempt to incorporate by reference into the Offer document all filings under Section 13, 14, and 15(d) of the Exchange Act filed while the Offer is pending and that the information filed with the Commission shall modify and supersede the Offer Letter/Prospectus. Please note that Schedule TO does not authorize incorporation by reference into your offering document of future filings made with the Commission. Please refer to General Instruction F to Schedule TO. Please revise to indicate that you will amend your offering materials to disclose material changes to the information published, sent or given to security holders, to the extent required. Accordingly, please amend to include your Form 10-Q for the period ended June 30, 2015. Refer to Item 1010(a)(2) of Regulation M-A. In addition, to the extent that you refer to the Private Securities Litigation Reform Act of 1995 in the documents you incorporate by reference or will incorporate by reference, such as your Form 10-K for the year ended March 31, 2016, and your most recent Form 10-Q, please revise to clarify that the PSLRA does not apply to statements in this tender offer. Refer to Exchange Act Section 21E(b)(2)(C).

Response:

The Company respectfully acknowledges the Staff's comment and has revised the requested disclosure on page 29 of Amendment No. 1 to the S-4. In addition, the Company notes to the Staff that on the page immediately prior to page 1 of Amendment No. 1 to the S-4, the section entitled "About this Offer Letter/Prospectus" already contains the following disclosure:

"We will amend the Offering Materials, including this Offer Letter/Prospectus, to the extent required by applicable securities laws to disclose any material changes to information previously published, sent or given to holders of the Original Warrants."

7. Please provide an updated pro forma presentation. Refer to Item 1010(b) of Regulation M-A.

Response

The Company respectfully acknowledges the Staff's comment and has provided an updated pro forma presentation in Annex C of Amendment No. 1 to the S-4.

8. Please revise to include summary financial information, as described in Item 1010(c) of Regulation M-A. Refer to Instruction 6 to Item 10 of Schedule TO and telephone interpretation I.H.7 in the July 2001 Supplement to the Manual of Publicly Available Telephone Interpretations that is available on the Commission's website at http://www.sec.gov for additional guidance.

Response:

The Company respectfully acknowledges the Staff's comment and has revised the requested disclosure on page 12 of Amendment No. 1 to the S-4.

Preliminary Proxy Statement on Schedule 14A

General

9. Please revise to mark both the proxy statement and attached form of proxy as a "Preliminary Copy" as required by Rule 14a-6(e)(1) of Regulation 14A.

Response:

The Company respectfully acknowledges the Staff's comment and has revised the proxy statement and form of proxy in Amendment No. 1 to the Preliminary Proxy Statement.

10. We note that in exchange for the Original Warrants, the Company shall issue (1) an equal number of warrants to purchase one share of common stock at an exercise price of \$1.50 per share (the "New Warrants"), conditioned upon the immediate exercise of such New Warrants, and (2) one warrant to purchase one share of common stock at an exercise price of \$3.00 per share for every four New Warrants exercised (the "Supplemental Warrants"). Please revise to include or incorporate by reference the financial information required by Item 13(a) of Schedule 14A. Please refer to Item 12(f) and Item 13(b)(2) of Schedule 14A. For guidance, please refer to the Manual of Publicly Available Telephone Interpretations for Proxy Rules and Schedule 14A, Question 42, available on the Commission's website at https://www.sec.gov/interps/telephone/cftelinterps proxyrules-sch14a.pdf.

Response:

The Company respectfully acknowledges the Staff's comment and has included or incorporated by reference the financial information required by Item 13(a) of Schedule 14A in <u>Annex A</u> and <u>Annex B</u> to Amendment No. 1 to the Preliminary Proxy Statement.

Proposal No. 3, page 14

11. We note your reference in bold to the material terms of the exchange offer on page 15. Please note that Item 12 of Schedule 14A does not permit incorporation by reference. Please refer to Note D to Schedule 14A. Accordingly, please revise to provide the disclosure required by Item 12(b) or confirm that the proxy statement includes such information.

Response:

The Company respectfully acknowledges the Staff's comment and has revised the disclosure on pages 14 and 15 of Amendment No. 1 to the Preliminary Proxy Statement.

Proposal No. 4, page 16

12. Please revise to disclose that you are providing this vote as required by Section 14A of the Exchange Act, the current frequency of shareholder advisory votes on executive compensation and when the next such vote will occur. Refer to Item 24 of Schedule 14A.

Response

The Company respectfully acknowledges the Staff's comment and has revised the disclosure on page 16 of Amendment No. 1 to the Preliminary Proxy Statement.

* * *

As requested, the Company acknowledges that:

- · the Company is responsible for the adequacy and accuracy of the disclosure in the filings;
- · Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filings; and
- the Company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States

If you have any additional questions or comments, please feel free to contact me directly at (760) 497-2206.

Sincerely,

/s/ Robert Stefanovich

Robert Stefanovich, CFO