



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

DIVISION OF
CORPORATION FINANCE

April 12, 2012

Via E-mail

Larry G. Stambaugh
Chief Executive Officer
Cryoport, Inc.
225 Broadway, Suite 430
San Diego, CA 92101

**Re: Cryoport, Inc.
Registration Statement on Form S-1
Filed March 23, 2012
File No. 333-180326**

Dear Mr. Stambaugh:

We have limited our review of your registration statement to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Regarding the Registration Statement on Form S-1 (File No. 333-173263) which became effective on April 28, 2011 and served as a post-effective amendment to two registration statements on Form S-1 through application of Securities Act Rule 429 (File No. 333-162350 and File No. 333-170027), we note that your prospectus appears to have been in use for more than nine months after the April 28, 2011 effective date. We further note that the audited financial statements contained therein, which are as of and for the fiscal year ended March 31, 2010, are older than 16 months and that you do not appear to have subsequently updated the audited financial statements in the prospectus pursuant to Section 10(a)(3) of the Securities Act of 1933, as amended, by filing a post-effective amendment to the registration statement until now. Please tell us whether any offers or sales were made pursuant to the prospectus during the period in which your financial statements were not current. For additional guidance, please refer to Question 139.28 of

the Securities Act Sections Compliance and Disclosure Interpretations found at <http://www.sec.gov/divisions/corpfin/guidance/sasinterp.htm>.

Security Ownership of Certain Beneficial Owners and Management, page 60

2. Based on your Selling Security Holder Table disclosure on page 64, it appears that BridgePointe Masters Fund Ltd and Deerfield Special Situations Fund International Limited each hold more than 5% of the company's outstanding stock. Please tell us why they are not listed in the beneficial ownership table, or otherwise revise your disclosure accordingly.

Selling Security Holder Table, page 64

3. Please revise your disclosure to identify the person or persons who have voting and/or investment control over the shares owned by Brio Capital LP, Broms Financial, LLC, and Celtic Enterprises LTD. Please refer to Question 140.02 of Regulation S-K Compliance and Disclosure Interpretations found at <http://www.sec.gov/divisions/corpfin/guidance/regs-kinterp.htm>.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under

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the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Sherry Haywood, Staff Attorney at (202) 551-3345 or, in her absence, Era Anagnosti, Senior Staff Attorney, at (202) 551-3369 with any other questions.

Sincerely,

/s/ Era Anagnosti

for Pamela Long
Assistant Director

cc: Via E-mail
Mark Ziebell, Esq.