**Exhibit 5.1**

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January 12, 2010

CryoPort, Inc.

20382 Barents Sea Circle

Lake Forest, California 92630

Re:           Registration Statement on Form S-1

Ladies and Gentlemen:

We have acted as counsel to CryoPort, Inc., a Nevada corporation (the “**Company**”), in connection with the Registration Statement on Form S-1 (File No. 333-162350) filed by the Company on October 6, 2009 with the Securities and Exchange Commission (the “**Commission**”) under the Securities Act of 1933, as amended (the “**Act**”), as such Registration Statement was amended by Pre-Effective Amendment No. 1 to Form S-1 filed by the Company on January 12, 2010 (as amended, the “**Registration Statement**”), with respect to the public offering by the Company of (i) up to 3,125,000 units (“**Units**”), with each Unit consisting of one share of the Company’s common stock, $0.001 par value (“**Common Stock**”), and one warrant to purchase one share of the Common Stock (“**Warrant**”); (ii) up to 468,750 Units for which the underwriters have been granted an over-allotment option (the “**Over-Allotment Units**”); (iii) all shares of Common Stock issued as part of the Units and the Over-Allotment Units (“**Unit Shares**”); (iv) all Warrants issued as part of the Units and the Over-Allotment Units (“**Unit Warrants**”); and (v) all shares of Common Stock issuable upon exercise of the Unit Warrants (“**Warrant Shares**” and, collectively with the Unit Shares, the “**Shares**”).

In connection with this opinion, and as such counsel, we have examined and relied upon originals or copies of the following documents (the “**Documents**”):

A. the Registration Statement;

B. the underwriting agreement between the Company and Rodman & Renshaw, LLC, the underwriters’ representative (“**Underwriting Agreement**”);

C. the Warrant Agreement between the Company and the Company’s transfer agent (“**Warrant Agreement**”);

D. Amended and Restated Articles of Incorporation of the Company, as amended to date and in effect on the date hereof, as certified by the Company’s duly elected Secretary;

E. Amended and Restated Bylaws of the Company, dated February 15, 2006, as amended by the Amendment of Amended and Restated Bylaws of the Company dated October 9, 2009, as certified by the Company’s duly elected Secretary; and

F. Resolutions of the Board of Directors of the Company dated January 11, 2010.

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For the purposes of rendering this opinion, we have examined originals or certified photostatic copies of such other corporate records, agreements, instruments and other documents of the Company as we have deemed relevant and necessary as a basis for the opinion hereinafter set forth.  In all such examinations, we have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of original and certified documents, the due authority of the parties signing such documents, and the conformity to original or certified documents of all copies submitted to us as conformed or reproduction copies.

In making our examination of documents executed or to be executed by parties other than the Company, we have assumed that such parties had or will have the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and execution and delivery by such parties of such documents and the validity and binding effect thereof.

As to questions of fact relevant to the opinions expressed herein, we have relied without investigation upon, and assumed the accuracy of, certificates and oral or written statements and other information of or from representatives of the Company and others.

Based on the foregoing, and subject to applicable state securities laws, when (i) the Registration Statement and any required post-effective amendment thereto have become effective under the Act; (ii) the Underwriting Agreement has been duly executed and delivered; (iii) the Warrant Agreement has been duly executed and delivered; (iv) the Units and Over-Allotment Units, are issued, sold and paid for in the manner described in the Registration Statement and in the Underwriting Agreement (and, as to the Warrant Shares, as provided in the Warrant Agreement and the Warrants); (v) for certificated Shares, the Shares have been duly executed by the Company, duly countersigned by an authorized signatory of the registrar for the Shares, and duly delivered to the purchasers thereof; and (vi) the Warrants have been duly executed by the Company, countersigned by the warrant agent pursuant to the Warrant Agreement, and duly delivered to the purchasers thereof, it is our opinion that (A) the issuance and sale of the Units, Over-Allotment Units, Unit Warrants and Shares will have been duly authorized; (B) the Units, Over-Allotment Units, Unit Warrants and Shares will be validly issued, fully paid and non-assessable; and (C) the Unit Warrants, if and when paid for in accordance with the terms of the Registration Statement and the Underwriting Agreement, will be valid and binding obligations of the Company, except as may be limited by bankruptcy, insolvency or other similar laws affecting the rights and remedies of creditors in general and the general principles of equity.

We express no opinion as to the applicability of, compliance with, or effect of any laws except the laws set forth in Chapter 78 of the Nevada Revised Statutes, applicable provisions of the Nevada Constitution and reported judicial decisions interpreting these laws and, as to the Warrants constituting legal obligations of the Company, solely with respect to the laws of the State of Nevada.  We assume no obligation to supplement this letter if any applicable laws change after the date of this letter with possible retroactive effect, or if any facts or events occur or come to our attention after the date of this letter that might change any of the opinions expressed above.

We consent to the filing of this legal opinion as an exhibit to the Registration Statement, and we further consent to the use of our name under the headings “Legal Matters” in the prospectus that forms a part of the Registration Statement and “Legal Matters” in any prospectus supplement that will form a part of the Registration Statement.  In giving such consent, we do not hereby concede that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the Rules and Regulations of the SEC thereunder.  This opinion is furnished by us, as counsel to the Company, in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act and, except as provided in this paragraph, is not to be used, circulated or quoted for any other purpose.

Very truly yours,

SNELL & WILMER L.L.P.

/s/ SNELL & WILMER L.L.P.