
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): August 1, 2013

ORGANOVO HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

Commission File Number: 001-35996

Delaware
(State or other jurisdiction
of incorporation)

27-1488943
(I.R.S. Employer
Identification No.)

**6275 Nancy Ridge Dr.,
San Diego, California 92121**
(Address of principal executive offices, including zip code)

(858) 550-9994
(Registrant's telephone number, including area code)

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 1.01 Entry into a Material Definitive Agreement.

On August 2, 2013, Organovo Holdings, Inc., a Delaware corporation (the “Company”), entered into an Underwriting Agreement (the “Underwriting Agreement”) with Lazard Capital Markets LLC, acting as representative of the underwriters named in the Underwriting Agreement (the “Underwriters”) and joint book-runner with Oppenheimer & Co. Inc., relating to the issuance and sale of 9,000,000 shares of the Company’s common stock, par value \$0.001 per share (the “Offering”). JMP Securities LLC and Maxim Group LLC are each acting as co-managers for the offering. The price to the public in the Offering is \$4.50 per share, and the Underwriters have agreed to purchase the shares from the Company pursuant to the Underwriting Agreement at a price of \$4.23 per share. Under the terms of the Underwriting Agreement, the Company has granted the Underwriters an option, exercisable for 30 days, to purchase up to an additional 1,350,000 shares. The net proceeds to the Company from the Offering are expected to be approximately \$37.7 million, after deducting underwriting discounts and commissions and estimated Offering expenses payable by the Company, assuming no exercise by the Underwriters of its option to purchase additional shares of common stock. The transactions contemplated by the Underwriting Agreement are expected to close on August 7, 2013, subject to the satisfaction of customary closing conditions.

The Offering was made pursuant to the Company’s shelf registration statement on Form S-3 (File No. 333-189995), as supplemented by a final prospectus supplement filed with the Securities and Exchange Commission pursuant to Rule 424(b) under the Securities Act of 1933, as amended (the “Securities Act”).

The Underwriting Agreement contains customary representations, warranties and agreements by the Company, customary conditions to closing, indemnification obligations of the Company and the Underwriter, including for liabilities under the Securities Act, other obligations of the parties and termination provisions. A copy of the Underwriting Agreement is filed as Exhibit 1.1 to this Current Report and is incorporated herein by reference. The foregoing description of the terms of the Underwriting Agreement is qualified in its entirety by the Underwriting Agreement.

The Underwriting Agreement is attached hereto as an exhibit to provide interested persons with information regarding its terms, but is not intended to provide any other factual information about the Company. The representations, warranties and covenants contained in the Underwriting Agreement were made only for purposes of the Underwriting Agreement as of specific dates indicated therein, were solely for the benefit of the parties to the Underwriting Agreement, and may be subject to limitations agreed upon by the parties, including being qualified by confidential disclosures exchanged between the parties in connection with the execution of the Underwriting Agreement.

The legal opinion, including the related consent, of DLA Piper LLP (US) relating to the legality of the issuance and sale of the shares of the Company’s common stock in the Offering is filed as Exhibit 5.1 to this Current Report.

This Current Report contains forward-looking statements that involve risk and uncertainties, such as statements related to the anticipated closing of the Offering and the amount of net proceeds expected from the Offering. The risks and uncertainties involved include the Company’s ability to satisfy certain conditions to closing on a timely basis or at all, as well as other risks detailed from time to time in the Company’s Securities and Exchange Commission filings.

Item 2.02 Results of Operations and Financial Condition.

The Company included certain preliminary financial results for its first fiscal quarter ended June 30, 2013 in the Recent Developments section of the preliminary prospectus supplement and final prospectus supplement (the “final prospectus supplement”) it filed with the Securities and Exchange Commission on August 1, 2013 and August 2, 2013, respectively, in connection with the Offering, including the following:

“June 30, 2013 Preliminary Financial Results

The Company is currently finalizing its financial results for the three months ended June 30, 2013. While complete financial information and operating data as of and for such period are not yet available, based on the information and data currently available, the Company’s management preliminarily estimates that for the three months ended June 30, 2013 its net loss was approximately \$(3.8) million, compared to a net loss of \$(16.1) million for the three months ended March 31, 2013. Additionally, management estimates that as of June 30, 2013, the Company had cash and

cash equivalents of approximately \$12.8 million and an accumulated deficit of approximately \$(70.1) million, as compared to \$15.6 million and \$(66.4) million, respectively, at March 31, 2013. At June 30, 2013, management estimates negative cash flow from operations was approximately \$2.7 million, as compared to \$2.8 million for the three months ended March 31, 2013.

The preliminary financial data above have been prepared by, and is the responsibility of, the Company's management. The Company's independent registered public accounting firm has not audited, reviewed, compiled, or performed any procedures with respect to this preliminary financial data and does not express an opinion or any other form of assurance with respect thereto. Because the three months ended June 30, 2013 has recently ended, the financial information presented above for the three months ended June 30, 2013 reflects estimates based only upon preliminary information available to the Company as of the date of the final prospectus supplement with the SEC and is not a comprehensive statement of the Company's financial results for the three months ended June 30, 2013. The Company's financial statements and operating data as of and for the three months ended June 30, 2013 will not be available until after the Offering is completed and may differ from the preliminary unaudited financial information the Company has provided. Such differences may be material. Accordingly, undue reliance should not be placed on these preliminary estimates. The estimates for the three months ended June 30, 2013 are not necessarily indicative of any future period and should be read together with "Risk Factors," "Special Note Regarding Forward-looking Statements," included in the final prospectus supplement and "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Selected Historical Financial Data" and the financial statements and related notes incorporated by reference into the final prospectus supplement."

The information furnished pursuant to this Item 2.02, shall not be deemed to be "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of such section, nor will such information be deemed incorporated by reference in any filing under the Securities Act, or the Exchange Act, except as may be expressly set forth by specific reference in such filing.

Item 8.01 Other Events.

Press Releases Regarding the Offering

On August 1, 2013, the Company issued a press release announcing that it intends to offer and sell shares of its common stock in an underwritten public offering, and on August 2, 2013, the Company issued a press release announcing that it had priced the Offering. Copies of these press releases are attached as Exhibits 99.1 and 99.2 hereto, respectively, and are incorporated herein by reference.

Recent Developments Disclosure

In addition to the preliminary financial results set forth in Item 2.02 above, the Company included the following information in the Recent Developments section of the preliminary prospectus supplement and final prospectus supplement it filed with the Securities and Exchange Commission on August 1, 2013 and August 2, 2013, respectively:

"Legal Matters

In addition to commitments and obligations in the ordinary course of business, the Company is subject to various claims and pending and potential legal actions arising out of the normal conduct of our business. The Company assesses contingencies to determine the degree of probability and range of possible loss for potential accrual in our financial statements. The Company accrues an estimated loss contingency in its financial statements if it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Because litigation is inherently unpredictable and unfavorable resolutions could occur, assessing litigation contingencies is highly subjective and requires judgments about future events. When evaluating contingencies, the Company may be unable to provide a meaningful estimate due to a number of factors, including the procedural status of the matter in question, the presence of complex or novel legal theories, and/or the ongoing discovery and development of information important to the matters. In addition, damage amounts claimed in litigation against the Company may be unsupported, exaggerated or unrelated to possible outcomes, and as such are not meaningful indicators of our potential liability. The Company regularly review contingencies to determine the adequacy of the Company's

accruals and related disclosures. The amount of ultimate loss may differ from these estimates. It is possible that the Company's cash flows or results of operations could be materially affected in any particular period by the unfavorable resolution of one or more of these contingencies. Whether any losses finally determined in any claim, action, investigation or proceeding could reasonably have a material adverse effect on the Company's business, financial condition, results of operations or cash flows will depend on a number of variables, including: the timing and amount of such losses; the structure and type of any remedies; the monetary significance of any such losses, damages or remedies may have on the Company's consolidated financial statements; and the unique facts and circumstances of the particular matter that may give rise to additional factors.

Spencer Trask Matter. On June 28, 2013, the Company filed a lawsuit for declaratory relief in the Supreme Court for the State of New York (case # 652305/2013) against Spencer Trask Ventures, Inc. ("STV") in connection with a Warrant Solicitation Agency Agreement (the "WSAA") that the Company entered into with STV in February 2013. In this action, the Company is seeking a declaration that the WSAA remains a valid and enforceable agreement. Over the course of several weeks in February 2013, Organovo and STV, through their respective attorneys, negotiated the WSAA pursuant to which the Company engaged STV as the Company's warrant solicitation agent in connection with the Company's efforts to solicit the exercise of outstanding Organovo warrants during the first quarter of 2013. STV's President signed the WSAA on behalf of STV, and the Company's CEO executed the agreement on behalf of Organovo. Spencer Trask provided services to the Company pursuant to the WSAA, and the Company has paid STV for those services.

The Company's dispute with Spencer Trask arose in March 2013 after the Company approached Spencer Trask about exercising their outstanding warrants to help the Company qualify for uplisting its common stock on the NYSE MKT. Previously, Spencer Trask had not asserted any claims for additional compensation as a result of the warrant tender offer the Company completed in December 2012. In March 2013, the Company received two demand letters from STV, and a demand for arbitration notice in June 2013. In the first demand letter, STV alleges that it is entitled to compensation (including a cash fee and warrants to purchase common stock) as a result of the warrant tender offer the Company completed in December 2012 and as a result of the warrant redemption the Company completed in March 2013. In the second letter, STV alleges it is entitled to damages because the Company allegedly violated confidentiality provisions in the Placement Agency Agreement (the "PAA") the Company had previously entered into with STV in December 2012 in connection with the private placement financings the Company completed in February and March 2012 (the "Private Placements"), by contacting the warrant holders who participated in the warrant tender offer. In response, on June 28, 2013, the Company filed a lawsuit for declaratory relief in the Supreme Court for the State of New York against STV. The Company's tender offer was made to warrant holders of record relating to warrants already owned by them and whose identity was public information via a Registration Statement on Form S-1 the Company was required to file to register the resale of the shares underlying their warrants. For these and other reasons, including applicability of the WSAA, the Company believes STV is not entitled to compensation under the PAA and there was no violation of confidentiality. To the Company's knowledge, STV has not filed its arbitration demand with the arbitrator.

The Company believes that the assertions made against it by STV are without merit and the Company intends to continue to vigorously defend against the claims made by STV, including any arbitration matter filed by STV. The Company has not established a loss contingency accrual for these claims because any potential liability is not probable or estimable. Nonetheless, an unfavorable resolution of these claims could have a material adverse effect on the Company's business, liquidity or financial condition in the reporting period in which such resolution occurs.

Other Legal Matters. In addition to the matter described above, the Company is subject to normal and routine litigation in the ordinary course of business. The Company has not accrued any loss contingencies for such matters. The Company intends to defend itself in any such matters and does not currently believe that the outcome of such matters will have a material adverse effect on its business, liquidity or financial position.

Board of Directors

On July 25, 2013, Andras Forgacs, a member of the Company's Board of Directors, resigned from the Board, effective on July 25, 2013. Mr. Forgacs was serving as a Class II director, with his term expiring at the Company's Annual Meeting of Stockholders scheduled for August 21, 2013. There are no disagreements between Mr. Forgacs and the Company relative to his resignation. To the Company's knowledge, Mr. Forgacs holds approximately 1.2% of the Company's outstanding common stock and while he is subject to Rule 144 limitations and a black-out period surrounding the filing of the Company's Quarterly Report on Form 10-Q, he has not entered into a lock-up agreement in connection with the Offering."

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
1.1	Underwriting Agreement, dated August 2, 2013, between Organovo Holdings, Inc. and Lazard Capital Markets LLC
5.1	Opinion and Consent of DLA Piper LLP (US)
23.1	Consent of DLA Piper LLP (US) (included in Exhibit 5.1)
99.1	Press Release, dated August 1, 2013, titled "Organovo Holdings, Inc. Proposes Public Offering of Common Stock"
99.2	Press Release, dated August 2, 2013, titled "Organovo Holdings, Inc. Prices \$40.5 Million Public Offering of Common Stock"

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned hereunto duly authorized.

ORGANOVO HOLDINGS, INC.

Date: August 2, 2013

/s/ Barry Michaels

Barry Michaels

Chief Financial Officer

Exhibit Index

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9,000,000 Shares of Common Stock

par value \$0.001

1,350,000 Over-Allotment Shares

Organovo Holdings, Inc.

UNDERWRITING AGREEMENT

August 2, 2013

LAZARD CAPITAL MARKETS LLC
As Representative of the several
Underwriters set forth in Schedule C hereto
c/o Lazard Capital Markets LLC
30 Rockefeller Plaza
New York, New York 10020

Dear Sirs:

1. **INTRODUCTION.** Organovo Holdings, Inc., a Delaware corporation (the “**Company**”), proposes to issue and sell to the several Underwriters (defined below), pursuant to the terms and conditions of this Underwriting Agreement (this “**Agreement**”), an aggregate of 9,000,000 shares of common stock, \$0.001 par value per share (the “**Common Stock**”) of the Company (the “**Firm Shares**”), as set forth in Schedule C hereto. The Company hereby confirms that Lazard Capital Markets LLC (“**LCM**”), Oppenheimer & Co., Inc. (“**Oppenheimer**”), JMP Securities LLC (“**JMP**”) and Maxim Group LLC (“**Maxim**”, together with LCM, Oppenheimer and JMP, the “**Underwriters**”) have acted as the Underwriters in accordance with the terms and conditions hereof. LCM is acting as the representative of the Underwriters and in such capacity is hereinafter referred to as the “**Representative.**”

The Company also proposes to issue and sell to the several Underwriters not more than an additional 1,350,000 shares of its Common Stock (the “**Additional Shares**”) if and to the extent that you, as Underwriters, shall have, severally and not jointly, determined to exercise your right to purchase such shares of Common Stock granted to the Underwriters below and in Section 2 hereof. The Firm Shares and the Additional Shares are hereinafter collectively referred to as the “**Shares.**”

The Underwriters may exercise their over-allotment purchase right in whole or from time to time in part by giving written notice not later than thirty (30) days after the date of this Agreement. Any exercise notice shall specify the number of Additional Shares to be purchased by the Underwriters and the date on which such shares are to be purchased. If any Additional Shares are to be purchased, the number of Additional Shares to be purchased by each Underwriter shall be the number of Additional Shares which bears the same ratio to the aggregate number of Additional Shares being purchased as the number of Firm Shares purchased

by such Underwriter bears to the aggregate number of Firm Shares purchased from the Company by the Underwriters, subject, however, to such adjustments to eliminate any fractional Shares as the Representative in its sole discretion shall make. Each purchase date must be at least one business day after the written notice is given and may not be earlier than the closing date for the Firm Shares or later than ten business days after the date of such notice. Additional Shares may be purchased hereby solely for the purpose of covering over-allotments made in connection with the offering of the Firm Shares. On each day, if any, that Additional Shares are to be purchased (an “**Option Closing Date**”).

2. **DELIVERY AND PAYMENT.** On the basis of the representations, warranties and agreements of the Company herein contained, and subject to the terms and conditions set forth in this Agreement:

2.1 The Company agrees to issue and sell and the Underwriters, severally and not jointly, agree to purchase from the Company an aggregate of 9,000,000 Firm Shares at a purchase price of \$4.23 per share of Common Stock (the “**Purchase Price**”). The Company has been advised by you that you propose to make a public offering of the Shares (the “**Offering**”) as soon after this Agreement has become effective as in your judgment is advisable. The Company is further advised by you that the Shares are to be offered to the public initially at \$4.50 per share.

2.2 Payment of the Purchase Price for, and delivery of, the Firm Shares shall be made at the time and date of closing and delivery of the documents required to be delivered to the Underwriters pursuant to Sections 4 and 6 hereof shall be at 11:00 A.M., New York time, on August 7, 2013 (the “**Closing Date**”) at the office of DLA Piper LLP, 4365 Executive Drive, San Diego, CA 92121 or at such other time and date as the Representative and the Company determine pursuant to Rule 15c6-1(a) under the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), the Company shall deliver the Firm Shares, which shall be registered in the name or names and shall be in such denominations as the Representative may request at least one (1) business day before the Closing Date, to the Representative, which delivery shall be made through the facilities of the Depository Trust Company’s DWAC system.

2.3 Payment of the Purchase Price for, and delivery of, any Additional Shares shall be made at the Option Closing Date or at such other time and date as the Representative and the Company determine pursuant to Rule 15c6-1(a) under the Exchange Act, the Company shall deliver the Additional Shares, which shall be registered in the name or names and shall be in such denominations as the Underwriters may request at least one (1) business day before the Option Closing Date, to the Underwriters, which delivery shall be made through the facilities of the Depository Trust Company’s DWAC system. The Option Closing Date may be simultaneous with, but not earlier than, the Closing Date; and in the event that such time and date are simultaneous with the Closing Date, the term “**Closing Date**” shall refer to the time and date of delivery of the Firm Shares and Additional Shares.

2.4 Prior to either of the Closing Date or the Option Closing Date, the Company shall not, without the prior written consent of the Representative, solicit or accept offers to purchase shares of the Common Stock or securities convertible into, exchangeable or exercisable for, shares of Common Stock (other than pursuant to the exercise of options or warrants to purchase shares of Common Stock that are outstanding at the date hereof) otherwise than through the Underwriters in accordance herewith.

2.5 No Shares which the Company has agreed to sell pursuant to this Agreement shall be deemed to have been purchased and paid for, or sold by the Company, until such Shares shall have been delivered to the Underwriters thereof against payment by each of the Underwriters.

3. *REPRESENTATIONS AND WARRANTIES OF THE COMPANY.* The Company represents and warrants to the Underwriters, as of the date hereof, and agrees with the Underwriters that:

(a) The Company has prepared and filed in conformity with the requirements of the Securities Act of 1933, as amended (the “**Securities Act**”), and published rules and regulations thereunder (the “**Rules and Regulations**”) adopted by the Securities and Exchange Commission (the “**Commission**”) a “shelf” Registration Statement (as hereinafter defined) on Form S-3 (File No. 333-189995), which became effective as of July 26, 2013 (the “**Effective Date**”), including a base prospectus relating to the Shares (the “**Base Prospectus**”), and such amendments and supplements thereto as may have been required up to the date of this Agreement. The term “**Registration Statement**” as used in this Agreement means the registration statement (including all exhibits, financial schedules and all documents and information deemed to be a part of the Registration Statement pursuant to Rule 430B of the Rules and Regulations), as amended and/or supplemented to the date of this Agreement, including the Base Prospectus. The Registration Statement is effective under the Securities Act and no stop order preventing or suspending the effectiveness of the Registration Statement or suspending or preventing the use of the Prospectus has been issued by the Commission and no proceedings for that purpose have been instituted or, to the knowledge of the Company, are threatened by the Commission. The Company, if required by the Rules and Regulations of the Commission, will file the Prospectus (as defined below), with the Commission pursuant to Rule 424(b) of the Rules and Regulations. The term “**Prospectus**” as used in this Agreement means the Prospectus, in the form in which it is to be filed with the Commission pursuant to Rule 424(b) of the Rules and Regulations, or, if the Prospectus is not to be filed with the Commission pursuant to Rule 424(b), the Prospectus in the form included as part of the Registration Statement as of the Effective Date, except that if any revised prospectus or prospectus supplement shall be provided to the Underwriters by the Company for use in connection with the Offering which differs from the Prospectus (whether or not such revised prospectus or prospectus supplement is required to be filed by the Company pursuant to Rule 424(b) of the Rules and Regulations), the term “**Prospectus**” shall refer to such revised prospectus or prospectus supplement, as the case may be, from and after the time it is first provided to the Underwriters for such use (or in the form first made available to the Underwriters by the Company to meet

requests of prospective purchasers pursuant to Rule 173 under the Securities Act). Any preliminary prospectus or prospectus subject to completion included in the Registration Statement or filed with the Commission pursuant to Rule 424 of the Rules and Regulations is hereafter called a “**Preliminary Prospectus**.” Any reference herein to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 which were filed under the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), on or before the last to occur of the Effective Date, the date of the Preliminary Prospectus, or the date of the Prospectus, and any reference herein to the terms “amend,” “amendment,” or “supplement” with respect to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include (i) the filing of any document under the Exchange Act after the Effective Date, the date of such Preliminary Prospectus or the date of the Prospectus, as the case may be, which is incorporated by reference and (ii) any such document so filed.

(b) As of the Applicable Time (as defined below) and as of the Closing Date and any Option Closing Date, neither (i) any General Use Free Writing Prospectus (as defined below) issued at or prior to the Applicable Time, and the Pricing Prospectus (as defined below) and the information included on Schedule A hereto, all considered together (collectively, the “**General Disclosure Package**”), (ii) any individual Limited Use Free Writing Prospectus (as defined below), nor (iii) the bona fide electronic road show (as defined in Rule 433(h)(5) of the Rules and Regulations), if any, that has been made available without restriction to any person, when considered together with the General Disclosure Package, included or will include, any untrue statement of a material fact or omitted or as of the Closing Date or any Option Closing Date will omit, to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however*, that the Company makes no representations or warranties as to information contained in or omitted from any Issuer Free Writing Prospectus, in reliance upon, and in conformity with, written information furnished to the Company by the Representative by or on behalf of the Underwriters specifically for inclusion therein, which information the parties hereto agree is limited to the Underwriters’ Information (as defined in Section 16). As used in this paragraph (b) and elsewhere in this Agreement:

“**Applicable Time**” means 8:30 A.M., New York time, on the date of this Agreement.

“**General Use Free Writing Prospectus**” means any Issuer Free Writing Prospectus that is identified on Schedule A to this Agreement.

“**Issuer Free Writing Prospectus**” means any “**issuer free writing prospectus**,” as defined in Rule 433 of the Rules and Regulations relating to the Shares in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g) of the Rules and Regulations.

“**Limited Use Free Writing Prospectuses**” means any Issuer Free Writing Prospectus that is not a General Use Free Writing Prospectus.

“**Pricing Prospectus**” means the Preliminary Prospectus, if any, and the Base Prospectus, each as amended and supplemented immediately prior to the Applicable Time, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof.

(c) No order preventing or suspending the use of any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus relating to the Offering has been issued by the Commission, and no proceeding for that purpose or pursuant to Section 8A of the Securities Act has been instituted or threatened by the Commission, and each Preliminary Prospectus (if any), at the time of filing thereof, conformed in all material respects to the requirements of the Securities Act and the Rules and Regulations, and did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however*, that the Company makes no representations or warranties as to information contained in or omitted from any Preliminary Prospectus, in reliance upon, and in conformity with, written information furnished to the Company by the Representative by or on behalf of the Underwriters specifically for inclusion therein, which information the parties hereto agree is limited to the Underwriters’ Information (as defined in [Section 16](#)).

(d) At the most recent Effective Date, at the date of this Agreement and at the Closing Date and any Option Closing Date, the Registration Statement conformed and will conform in all material respects to the requirements of the Securities Act and the Rules and Regulations and did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading; the Prospectus, at the time the Prospectus was issued and at the Closing Date and any Option Closing Date, conformed and will conform in all material respects to the requirements of the Securities Act and the Rules and Regulations and did not and will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading; *provided, however*, that the foregoing representations and warranties in this [paragraph \(d\)](#) shall not apply to information contained in or omitted from the Registration Statement or the Prospectus in reliance upon, and in conformity with, written information furnished to the Company by the Representative by or on behalf of the Underwriters specifically for inclusion therein, which information the parties hereto agree is limited to the Underwriters’ Information (as defined in [Section 16](#)).

(e) Each Issuer Free Writing Prospectus, if any, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Shares or until any earlier date that the Company notified or notifies the Representative as described in [Section 4\(e\)](#), did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, Pricing Prospectus or the Prospectus, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof that has not been superseded or modified, or includes an untrue statement of a material fact or omitted

or would omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus in reliance upon, and in conformity with, written information furnished to the Company by the Representative by or on behalf of the Underwriters specifically for inclusion therein, which information the parties hereto agree is limited to the Underwriters' Information (as defined in Section 16).

(f) The documents incorporated by reference in the Prospectus, when they became effective or were filed with the Commission, as the case may be, conformed in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and none of such documents contained any untrue statement of a material fact or omitted to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading; and any further documents so filed and incorporated by reference in the Prospectus, when such documents become effective or are filed with the Commission, as the case may be, will conform in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

(g) At the Effective Date, and at the date hereof, the Company was not and currently is not an "ineligible issuer" in connection with the Offering pursuant to Rule 405 under the Securities Act. The Company has not, directly or indirectly, distributed and will not distribute any offering material in connection with the Offering other than any Preliminary Prospectus, the Prospectus and other materials, if any, permitted under the Securities Act and consistent with Section 4(b) below. The Company will file with the Commission all Issuer Free Writing Prospectuses (other than a "road show," as described in Rule 433(d)(8) of the Rules and Regulations), if any, in the time and manner required under Rules 163(b)(2) and 433(d) of the Rules and Regulations.

(h) The Company and each of its subsidiaries (as defined in Section 15) have been duly organized and are validly existing as corporations or other legal entities in good standing (or the foreign equivalent thereof) under the laws of their respective jurisdictions of organization. The Company and each of its subsidiaries are duly qualified to do business and are in good standing as foreign corporations or other legal entities in each jurisdiction in which their respective ownership or lease of property or the conduct of their respective businesses requires such qualification and have all power and authority (corporate or other) necessary to own or hold their respective properties and to conduct the businesses in which they are engaged, except where the failure to so qualify or have such power or authority would not (i) have, singly or in the aggregate, a material adverse effect on the condition (financial or otherwise), results of operations, business or prospects of the Company and its subsidiaries taken as a whole, or (ii) impair

in any material respect the ability of the Company to perform its obligations under this Agreement or to consummate any transactions contemplated by this Agreement, the General Disclosure Package or the Prospectus (any such effect as described in clauses (i) or (ii), a “**Material Adverse Effect**”). The Company owns or controls, directly or indirectly, only the following corporation: Organovo, Inc., a Delaware corporation

(i) The Company has the corporate power and authority to enter into this Agreement, and to perform and to discharge its obligations hereunder; and this Agreement has been duly authorized, executed and delivered by the Company, and constitutes a valid and binding obligation of the Company enforceable in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors’ rights generally and except as enforceability may be subject to general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law) now or hereafter in effect.

(j) The Firm Shares and the Additional Shares to be issued and sold by the Company to the Underwriters hereunder have been duly and validly authorized and, when issued and delivered by the Company against payment therefore as provided herein, will be duly and validly issued, fully paid and nonassessable and free of any preemptive, rights of first refusal, registration rights or similar rights and will conform to the description thereof contained in the General Disclosure Package and the Prospectus.

(k) The Company has an authorized capitalization as set forth in the Pricing Prospectus, and all of the issued shares of capital stock of the Company have been duly and validly authorized and issued, are fully paid and non-assessable, have been issued in compliance with federal and state securities laws, and conform to the description thereof contained in the General Disclosure Package and the Prospectus. As of March 31, 2013, there were 64,686,919 shares of Common Stock issued and outstanding and no shares of Preferred Stock, par value \$0.001 of the Company issued and outstanding and 7,902,456 shares of Common Stock were issuable upon the exercise of all options, warrants and convertible securities outstanding as of such date. Since such date, the Company has not issued any securities, other than Common Stock of the Company issued pursuant to the exercise of stock options previously outstanding under the Company’s stock plans, or the issuance of common stock upon exercise of outstanding warrants or the issuance of options or restricted Common Stock under the Company’s stock plans. All of the stock options, warrants and other rights to purchase or exchange any securities for shares of the Company’s capital stock have been duly authorized and validly issued, and were issued in compliance with U.S. federal and state securities laws. None of the outstanding shares of Common Stock was issued in violation of any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase securities of the Company. The description of the Company’s stock option, stock bonus and other stock plans or arrangements, and the stock options or other rights granted thereunder, as described in the General Disclosure Package and the Prospectus, accurately and fairly present the information required to be shown with respect to such plans, arrangements, stock options and rights.

(l) All the outstanding shares of capital stock or other equity interests of each subsidiary of the Company have been duly authorized and validly issued, are fully paid and nonassessable and, except to the extent set forth in the General Disclosure Package or the Prospectus, are owned by the Company directly or indirectly through one or more wholly-owned subsidiaries, free and clear of any claim, lien, encumbrance, security interest, restriction upon voting or transfer or any other claim of any third party.

(m) The execution, delivery and performance of this Agreement by the Company, the issuance and sale of the Firm Shares or any Additional Shares by the Company and the consummation of the transactions contemplated hereby and thereby will not (with or without notice or lapse of time or both) (i) conflict with or result in a breach or violation of any of the terms or provisions of, constitute a default or Debt Repayment Triggering Event (as defined below) under, give rise to any right of termination or other right or the cancellation or acceleration of any right or obligation or loss of a benefit under, or give rise to the creation or imposition of any lien, encumbrance, security interest, claim or charge upon any property or assets of the Company or any subsidiary pursuant to, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company or any of its subsidiaries is subject, (ii) result in any violation of the provisions of the charter or by-laws (or analogous governing instruments, as applicable) of the Company or any of its subsidiaries or (iii) result in any violation of any law, statute, rule, regulation, judgment, order or decree of any court or governmental agency or body, domestic or foreign, having jurisdiction over the Company or any of its subsidiaries or any of their properties or assets, except, with respect to clauses (i) and (iii) of this paragraph such as would not, singly or in the aggregate, have a Material Adverse Effect. A “**Debt Repayment Triggering Event**” means any event or condition that gives, or with the giving of notice or lapse of time would give the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder’s behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any of its subsidiaries.

(n) Except for the registration of the Shares under the Securities Act and such consents, approvals, authorizations, registrations or qualifications as may be required under the Exchange Act and applicable state or foreign securities laws, the Financial Industry Regulatory Authority (“**FINRA**”) and the NYSE MKT (“**NYSE MKT**”) in connection with the Offering by the Company, no consent, approval, authorization or order of, or filing, qualification or registration with, any court or governmental agency or body, foreign or domestic, which has not been made, obtained or taken and is not in full force and effect, is required for the execution, delivery and performance of this Agreement by the Company, the offer or sale of the Shares or the consummation of the transactions contemplated hereby or thereby.

(o) Mayer Hoffman McCann P.C., has certified certain financial statements and related schedules included or incorporated by reference in the Registration

Statement, the General Disclosure Package and the Prospectus, is an independent registered public accounting firm as required by the Securities Act and the Rules and Regulations and the Public Company Accounting Oversight Board (United States) (the “**PCAOB**”). Except as pre-approved in accordance with the requirements set forth in Section 10A of the Exchange Act, Mayer Hoffman McCann P.C. has not been engaged by the Company to perform any “prohibited activities” (as defined in Section 10A of the Exchange Act).

(p) The financial statements, together with the related notes and schedules, included or incorporated by reference in the General Disclosure Package, the Prospectus and in the Registration Statement fairly present the financial position and the results of operations and changes in financial position, stockholders’ equity and cash flows of the Company and its consolidated subsidiaries and other consolidated entities at the respective dates or for the respective periods therein specified. Such statements and related notes and schedules have been prepared in accordance with generally accepted accounting principles in the United States (“**GAAP**”) applied on a consistent basis throughout the periods involved except as may be set forth in the related notes included or incorporated by reference in the General Disclosure Package. The financial statements, together with the related notes and schedules, included or incorporated by reference in the General Disclosure Package and the Prospectus comply in all material respects with the Securities Act, the Exchange Act, and the Rules and Regulations and the rules and regulations under the Exchange Act. No other financial statements or supporting schedules or exhibits are required by the Securities Act or the Rules and Regulations to be described, or included or incorporated by reference in the Registration Statement, the General Disclosure Package or the Prospectus. There is no pro forma or as adjusted financial information which is required to be included in the Registration Statement, the General Disclosure Package, or and the Prospectus or a document incorporated by reference therein in accordance with the Securities Act and the Rules and Regulations which has not been included or incorporated as so required.

(q) Neither the Company nor any of its subsidiaries has sustained, since the date of the latest audited financial statements included or incorporated by reference in the General Disclosure Package, any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the General Disclosure Package; and, since such date, there has not been any material change in the capital stock or long-term debt of the Company other than pursuant to any employee benefit plans or similar plans as set forth in the General Disclosure Package or incorporated by reference therein or any material adverse changes, or any development involving a prospective material adverse change, in or affecting the business, assets, general affairs, management, financial position, prospects, stockholders’ equity or results of operations of the Company and its subsidiaries taken as a whole, otherwise than as set forth or contemplated in the General Disclosure Package.

(r) Except as set forth in the General Disclosure Package, there is no legal or governmental action, suit, claim or proceeding pending to which the Company or any of

its subsidiaries is a party or of which any property or assets of the Company or any of its subsidiaries is the subject which is required to be described in the Registration Statement, the General Disclosure Package or the Prospectus or a document incorporated by reference therein and is not described therein, or which, singly or in the aggregate, if determined adversely to the Company or any of its subsidiaries, could have a Material Adverse Effect or prevent the consummation of the transactions contemplated hereby; and to the Company's knowledge, except as set forth in the General Disclosure Package, no such proceedings are threatened or contemplated by governmental authorities or threatened by others.

(s) Neither the Company nor any of its subsidiaries is in (i) violation of its charter or by-laws (or analogous governing instrument, as applicable), (ii) default in any respect, and no event has occurred which, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant, obligation, agreement or condition contained in any indenture, mortgage, deed of trust, loan or credit agreement, other evidence of indebtedness, or any license, lease, contract or other agreement or instrument to which it is a party or by which the Company or its subsidiaries are bound or to which any of its property or assets is subject or (iii) violation in any respect of any statute, law, ordinance, governmental rule, regulation, ordinance, or court order, decree or judgment to which it or its property or assets may be subject except, in the case of clauses (ii) and (iii) of this paragraph (s), for any violations or defaults which would not, singly or in the aggregate, have a Material Adverse Effect.

(t) The Company and each of its subsidiaries own or possess all approvals, licenses, certificates, clearances, consents, exemptions, marks, notifications, orders, authorizations and permits issued by, and have made all applicable declarations and filings with, the appropriate local, state, federal or foreign regulatory agencies or bodies, including, without limitation, the Food and Drug Administration (the "FDA") and any agency of any foreign government and any other foreign regulatory authority exercising authority comparable to that of the FDA (including any non-governmental entity whose approval or authorization is required under foreign law comparable to that administered by the FDA), which are necessary for the ownership of their respective properties or the conduct of their respective businesses currently being conducted and as described in the General Disclosure Package and the Prospectus (collectively, the "**Governmental Permits**") and is in compliance with the terms and conditions of all such Governmental Permits, except where any failures to possess, comply or make the same would not, singly or in the aggregate, have a Material Adverse Effect. All such Governmental Permits are valid and in full force and effect except where the validity or failure to be in full force and effect would not, singly or in the aggregate, have a Material Adverse Effect. All such Governmental Permits are free and clear of any restriction or condition that are in addition to, or materially different from those normally applicable to similar licenses, certificates, authorizations and permits. Neither the Company nor any of its subsidiaries has received any notice of any revocation or modification of, any such Governmental Permit, which, individually or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would have a Material Adverse Effect.

(u) Neither the Company nor any of its subsidiaries is or, after giving effect to the Offering and the application of the proceeds thereof as described in the General Disclosure Package and the Prospectus, will be required to register as an “investment company” within the meaning of the Investment Company Act of 1940, as amended, and the rules and regulations of the Commission thereunder.

(v) Neither the Company, its subsidiaries nor, to the Company’s knowledge, any of the Company’s or its subsidiaries’ officers, directors or affiliates has taken or will take, directly or indirectly, any action designed or intended to stabilize or manipulate the price of any security of the Company, or which caused or resulted in, or which could in the future reasonably be expected to cause or result in, stabilization or manipulation of the price of any security of the Company.

(w) To the Company’s knowledge, the Company and each of its subsidiaries owns or possesses the right to use all patents, trademarks, trademark registrations, service marks, service mark registrations, trade names, copyrights, licenses, inventions, software, databases, know-how, Internet domain names, trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures, and other intellectual property (collectively, “**Intellectual Property**”) necessary to carry on their respective businesses as currently conducted, and as proposed to be conducted and described in the General Disclosure Package and the Prospectus, and the Company is not aware of any claim to the contrary or any challenge by any other person to the rights of the Company and its subsidiaries with respect to the foregoing except for those that could not have a Material Adverse Effect. The Intellectual Property licenses described in the General Disclosure Package and the Prospectus are valid, binding upon, and enforceable by or against the parties thereto in accordance with their terms. The Company and each of its subsidiaries has complied in all material respects with, and is not in breach nor has received any asserted or threatened claim of breach of, any Intellectual Property license, and the Company has no knowledge of any breach or anticipated breach by any other person to any Intellectual Property license. To the Company’s knowledge, the Company’s and each of its subsidiaries’ businesses as now conducted and as proposed to be conducted do not and will not infringe or conflict with any valid and enforceable patents, trademarks, service marks, trade names, copyrights, trade secrets, licenses or other Intellectual Property or franchise right of any person. No claim has been made against the Company or any of its subsidiaries alleging the infringement by the Company or any of its subsidiaries of any patent, trademark, service mark, trade name, copyright, trade secret, license in or other intellectual property right or franchise right of any person except as could not reasonably be expected to have a Material Adverse Effect. The Company and each of its subsidiaries has taken all reasonable steps to protect, maintain and safeguard its rights in all Intellectual Property, including the execution of appropriate nondisclosure and confidentiality agreements. The consummation of the transactions contemplated by this Agreement will not result in the loss or impairment of or payment of any additional amounts with respect to, nor require the consent of any other person in respect of, the Company’s or any of its subsidiaries’ right to own, use, or hold for use any of the Intellectual Property as owned, used or held for use in the conduct of the businesses as currently conducted. The Company and each of its subsidiaries has at all

times materially complied, and is in compliance with, all applicable laws relating to privacy, data protection, and the collection and use of personal information collected, used, or held for use by the Company and any of its subsidiaries in the conduct of the Company's and its subsidiaries businesses except as could not reasonably be expected to have a Material Adverse Effect. No claims have been asserted or to the knowledge of the Company, threatened against the Company or any of its subsidiaries alleging a violation of any person's privacy or personal information or data rights and the consummation of the transactions contemplated hereby will not breach or otherwise cause any violation of any law related to privacy, data protection, or the collection and use of personal information collected, used, or held for use by the Company or any of its subsidiaries in the conduct of the Company's or any of its subsidiaries' businesses. The Company and each of its subsidiaries takes reasonable measures to ensure that such information is protected against unauthorized access, use, modification, or other misuse.

(x) Not including Intellectual Property, the Company and each of its subsidiaries have good, valid and marketable title in fee simple to, or have valid rights to lease or otherwise use, all items of real or personal property which are material to the business of the Company and its subsidiaries taken as a whole, in each case free and clear of all liens, encumbrances, security interests, claims and defects that do not, singly or in the aggregate, materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company or any of its subsidiaries except for those liens, encumbrances, security interests, claims and defects that would not have a Material Adverse Effect; and all of the leases and subleases material to the business of the Company and its subsidiaries, considered as one enterprise, and under which the Company or any of its subsidiaries holds properties described in the General Disclosure Package and the Prospectus, are in full force and effect, and neither the Company nor any subsidiary has received any notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company or any subsidiary under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or such subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease.

(y) No labor disturbance by the employees of the Company or any of the Company's subsidiaries exists or, to the Company's knowledge, is threatened or imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its or its subsidiaries' principal suppliers, manufacturers, customers or contractors, that could reasonably be expected, singly or in the aggregate, to have a Material Adverse Effect. The Company is not aware that any key employee or significant group of employees of the Company or any of the Company's subsidiaries plans to terminate employment with the Company or any of the Company's subsidiaries.

(z) No "prohibited transaction" (as defined in Section 406 of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder ("**ERISA**"), or Section 4975 of the Internal Revenue Code of 1986, as amended from time to time (the "**Code**")) or "accumulated funding deficiency" (as defined in Section 302 of ERISA) or any of the events set forth in

Section 4043(b) of ERISA (other than events with respect to which the thirty (30)-day notice requirement under Section 4043 of ERISA has been waived) has occurred or could reasonably be expected to occur with respect to any employee benefit plan of the Company or any of its subsidiaries which could, singly or in the aggregate, have a Material Adverse Effect. Each employee benefit plan of the Company or any of its subsidiaries is in compliance in all material respects with applicable law, including ERISA and the Code. The Company and its subsidiaries have not incurred and could not reasonably be expected to incur liability under Title IV of ERISA with respect to the termination of, or withdrawal from, any pension plan (as defined in ERISA). Each pension plan for which the Company or any of its subsidiaries would have any liability that is intended to be qualified under Section 401(a) of the Code is so qualified, and nothing has occurred, whether by action or by failure to act, which could, singly or in the aggregate, cause the loss of such qualification.

(aa) The Company and its subsidiaries are in compliance with all foreign, federal, state and local rules, laws and regulations relating to the use, treatment, storage and disposal of hazardous or toxic substances or waste and protection of health and safety or the environment which are applicable to their businesses (“**Environmental Laws**”), except where the failure to comply would not, singly or in the aggregate, have a Material Adverse Effect. There has been no storage, generation, transportation, handling, treatment, disposal, discharge, emission, or other release of any kind of toxic or other wastes or other hazardous substances by, due to, or caused by the Company or any of its subsidiaries (or, to the Company’s knowledge, any other entity for whose acts or omissions the Company or any of its subsidiaries is or may otherwise be liable) upon any of the property now or previously owned or leased by the Company or any of its subsidiaries, or upon any other property, in violation of any law, statute, ordinance, rule, regulation, order, judgment, decree or permit or which would, under any law, statute, ordinance, rule (including rule of common law), regulation, order, judgment, decree or permit, give rise to any liability, except for any violation or liability which would not have, singly or in the aggregate with all such violations and liabilities, a Material Adverse Effect; and there has been no disposal, discharge, emission or other release of any kind onto such property or into the environment surrounding such property of any toxic or other wastes or other hazardous substances with respect to which the Company has knowledge, except for any such disposal, discharge, emission, or other release of any kind which would not have, singly or in the aggregate with all such discharges and other releases, a Material Adverse Effect. In the ordinary course of business, the Company and its subsidiaries conduct periodic reviews of the effect of Environmental Laws on their business and assets, in the course of which they identify and evaluate associated costs and liabilities (including, without limitation, any capital or operating expenditures required for clean-up, closure of properties or compliance with Environmental Laws or Governmental Permits issued thereunder, any related constraints on operating activities and any potential liabilities to third parties). On the basis of such reviews, the Company and its subsidiaries have reasonably concluded that such associated costs and liabilities would not have, singly or in the aggregate, a Material Adverse Effect.

(bb) The Company and its subsidiaries are in compliance in all respects with all applicable provisions of the Occupational Safety and Health Act of 1970, as amended, including all applicable regulations thereunder, except for such noncompliance as would not, singly or in the aggregate, have a Material Adverse Effect.

(cc) The Company and its subsidiaries, each (i) has timely filed all necessary federal, state, local and foreign tax returns (or timely filed applicable extensions therefor) that have been required to be filed, and all such returns were true, complete and correct, (ii) has paid all federal, state, local and foreign taxes, assessments, governmental or other charges that are due and payable for which it is liable, including, without limitation, all sales and use taxes and all taxes which the Company or any of its subsidiaries is obligated to withhold from amounts owing to employees, creditors and third parties, and (iii) does not have any tax deficiency or claims outstanding or assessed or, to its knowledge, proposed against any of them, except those, in each of the cases described in clauses (i), (ii) and (iii) of this paragraph (cc), that would not, singly or in the aggregate, have a Material Adverse Effect. The Company and its subsidiaries, each has not engaged in any transaction which is a corporate tax shelter or which could be characterized as such by the Internal Revenue Service or any other taxing authority. The accruals and reserves on the books and records of the Company and its subsidiaries in respect of tax liabilities for any taxable period not yet finally determined are adequate to meet any assessments and related liabilities for any such period, and since December 31, 2012 the Company and its subsidiaries each has not incurred any liability for taxes other than in the ordinary course.

(dd) The Company and each of its subsidiaries carries, or is covered by insurance provided by nationally recognized institutions with policies in such amounts and covering such risks as the Company considers is adequate for the conduct of their respective businesses and the value of their respective properties. The Company has no reason to believe that it and its subsidiaries will not be able to renew their existing insurance coverage as and when such coverage expires or to obtain comparable coverage from similar insurers as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not have a Material Adverse Effect.

(ee) The Company and its subsidiaries each maintains a system of internal accounting and other controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as described in the General Disclosure Package, since the end of the Company's most recent audited fiscal year, there has been (A) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (B) no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(ff) The minute books of the Company and each of its subsidiaries that would be a “significant subsidiary” within the meaning of Rule 1-02(w) of Regulation S-X under the Exchange Act (such a significant subsidiary of the Company, a “**Significant Subsidiary**”) have been made available to the Underwriters and counsel for the Underwriters, and such books (i) contain a complete summary of all meetings and actions of the board of directors (including each board committee) and stockholders of the Company (or analogous governing bodies and interest holders, as applicable), and each of its Significant Subsidiaries since the time of its respective incorporation or organization through the date of the latest meeting and action, and (ii) accurately in all material respects reflect all transactions referred to in such minutes.

(gg) There is no franchise, lease, contract, agreement or document required by the Securities Act or by the Rules and Regulations to be described in the General Disclosure Package and in the Prospectus or a document incorporated by reference therein or to be filed as an exhibit to the Registration Statement or a document incorporated by reference therein which is not described or filed therein as required; and all descriptions of any such franchises, leases, contracts, agreements or documents contained in the Registration Statement or in a document incorporated by reference therein are accurate and complete descriptions of such documents in all material respects. Other than as described in the General Disclosure Package, no such franchise, lease, contract or agreement has been suspended or terminated for convenience or default by the Company or any of its subsidiaries or any of the other parties thereto, and neither the Company nor any of its subsidiaries has received notice nor does the Company have any other knowledge of any such pending or threatened suspension or termination, except for such pending or threatened suspensions or terminations that would not reasonably be expected to, singly or in the aggregate, have a Material Adverse Effect.

(hh) No relationship, direct or indirect, exists between or among the Company and any of its subsidiaries on the one hand, and the directors, officers, stockholders (or analogous interest holders), customers or suppliers of the Company or any of its subsidiaries or any of their affiliates on the other hand, which is required to be described in the General Disclosure Package and the Prospectus or a document incorporated by reference therein and which is not so described.

(ii) No person or entity has the right to require registration of shares of Common Stock or other securities of the Company or any of its subsidiaries because of the filing or effectiveness of the Registration Statement or otherwise, except for persons and entities who have expressly waived such right in writing or who have been given timely and proper written notice and have failed to exercise such right within the time or times required under the terms and conditions of such right. Except as described in the General Disclosure Package, there are no persons with registration rights or similar rights to have any securities registered by the Company or any of its subsidiaries under the Securities Act.

(jj) Neither the Company nor any of its subsidiaries owns any “margin securities” as that term is defined in Regulation U of the Board of Governors of the Federal Reserve System (the “**Federal Reserve Board**”), and none of the proceeds of the sale of any of the Shares will be used, directly or indirectly, for the purpose of purchasing or carrying any margin security, for the purpose of reducing or retiring any indebtedness which was originally incurred to purchase or carry any margin security or for any other purpose which might cause any of the Shares to be considered a “purpose credit” within the meanings of Regulation T, U or X of the Federal Reserve Board.

(kk) Neither the Company nor any of its subsidiaries is a party to any contract, agreement or understanding with any person (other than this Agreement and that certain Placement Agent Agreement, dated December 1, 2011, by and between the Company and Spencer Trask Ventures, Inc.) that would give rise to a valid claim against the Company or the Underwriters for a brokerage commission, finder’s fee or like payment in connection with the Offering or any transaction contemplated by this Agreement, the Registration Statement, the General Disclosure Package or the Prospectus.

(ll) No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in either the General Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(mm) The Company is subject to and in compliance in all material respects with the reporting requirements of Section 13 or Section 15(d) of the Exchange Act, and has filed in a timely manner all reports required to be filed pursuant to Sections 13(a), 13(e), 14 and 15(d) of the Exchange Act during the preceding 12 months. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act and is listed on the NYSE MKT, and the Company has taken no action designed to, or reasonably likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting the Common Stock from the NYSE MKT, nor has the Company received any notification that the Commission, FINRA or the New York Stock Exchange (inclusive with the NYSE MKT) is currently contemplating terminating such registration or listing. No consent, approval, authorization or order of, or filing, notification or registration with, the NYSE MKT is required for the listing and trading of the shares of Common Stock on the NYSE MKT, except for (i) a Notification Form: Listing of Additional Shares; and (ii) a Notification Form: Change in the Number of Shares Outstanding.

(nn) The Company is, and after giving effect to the Offering will be, in compliance in all material respects with all effective provisions of the Sarbanes-Oxley Act of 2002 and any related rules and regulations promulgated by the Commission thereunder (the “**Sarbanes-Oxley Act**”) to the extent such provisions are applicable to the Company.

(oo) The Company is, and after giving effect to the Offering will be, in compliance in all material respects with all applicable corporate governance requirements set forth in the NYSE MKT Rules.

(pp) Neither the Company nor any of its subsidiaries nor, to the best of the Company's knowledge, any employee or agent of the Company or any subsidiary, has made any contribution or other payment to any official of, or candidate for, any federal, state, local or foreign office in violation of any law (including the Foreign Corrupt Practices Act of 1977, as amended) or of the character required to be disclosed in the Registration Statement, the General Disclosure Package or the Prospectus or a document incorporated by reference therein.

(qq) There are no transactions, arrangements or other relationships between and/or among the Company, any of its affiliates (as such term is defined in Rule 405 of the Securities Act) and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity that could reasonably be expected to materially affect the Company's or any of its subsidiaries' liquidity or the availability of or requirements for their capital resources required to be described in the General Disclosure Package and the Prospectus or a document incorporated by reference therein which have not been described as required.

(rr) There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees or indebtedness by the Company or any of its subsidiaries to or for the benefit of any of the officers or directors of the Company, any of its subsidiaries or any of their respective family members, except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus.

(ss) Any statistical, industry-related or market-related data included or incorporated by reference in the Registration Statement, the Prospectus or the General Disclosure Package, are based on or derived from sources that the Company believes to be reliable and accurate.

(tt) The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the USA PATRIOT Act, applicable money laundering statutes of all jurisdictions and the applicable rules, related rules and regulations thereunder (collectively, the "**Money Laundering Laws**"), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Money Laundering Laws is pending, or to the knowledge of the Company, threatened against the Company or any of its subsidiaries.

(uu) Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company or any of its subsidiaries is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("**OFAC**"); and the Company will not directly or indirectly use the proceeds of the Offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, which, to the Company's knowledge will use such proceeds for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(vv) Neither the Company nor any subsidiary nor any of their affiliates (within the meaning of FINRA's NASD Conduct Rule 5121(f)(1)) directly or indirectly controls, is controlled by, or is under common control with, or is an associated person (within the meaning of Article I, Section 1(ee) of the By-laws of FINRA) of, any member firm of FINRA.

(ww) No approval of the stockholders of the Company under the rules and regulations of the NYSE MKT Rules (including Rule 713) is required for the Company to issue and deliver to the Underwriters the Shares.

Any certificate signed by or on behalf of the Company and delivered to the Representative or to counsel for the Underwriters shall be deemed to be a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

4. Further Agreements of the Company. *THE COMPANY AGREES WITH THE UNDERWRITERS:*

(a) To prepare the Rule 462(b) Registration Statement, if necessary, in a form approved by the Representative and file such Rule 462(b) Registration Statement with the Commission on the date hereof; to prepare the Prospectus in a form approved by the Representative containing information previously omitted at the time of effectiveness of the Registration Statement in reliance on rules 430A, 430B and 430C of the Rules and Regulations and to file such Prospectus pursuant to Rule 424(b) of the Rules and Regulations not later than the second (2nd) business day following the execution and delivery of this Agreement or, if applicable, such earlier time as may be required by Rule 430A of the Rules and Regulations; to notify the Representative immediately of the Company's intention to file or prepare any supplement or amendment to any Registration Statement or to the Prospectus in connection with this Offering and to make no amendment or supplement to the Registration Statement, the General Disclosure Package or to the Prospectus to which the Representative shall reasonably object by notice to the Company after a reasonable period to review; to advise the Representative, promptly after it receives notice thereof, of the time when any amendment to the Registration Statement has been filed or becomes effective or any supplement to the General Disclosure Package or the Prospectus or any amended Prospectus has been filed and to furnish the Representative copies thereof; to file promptly all material required to be filed by the Company with the Commission pursuant to Rule 433(d) or 163(b)(2), as the case may be, of the Rules and Regulations; to file promptly all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of the Prospectus and for so long as the delivery of a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) of the Rules and Regulations) is required in connection with the Offering or sale of the Shares; to advise the Representative, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of any

Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus, of the suspension of the qualification of the Shares for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the Registration Statement, the General Disclosure Package or the Prospectus or for additional information; and, in the event of the issuance of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus or suspending any such qualification, and promptly to use its best efforts to obtain the withdrawal of such order.

(b) The Company represents and agrees that, it has not made, and unless it obtains the prior consent of the Representative, it will not, make any offer relating to the Shares that would constitute a “free writing prospectus” as defined in Rule 405 of the Rules and Regulations (each, a “**Permitted Free Writing Prospectus**”); *provided* that the prior written consent of the Representative hereto shall be deemed to have been given in respect of the Issuer Free Writing Prospectus(es) included in Schedule A hereto. The Company represents that it has treated and agrees that it will treat each Permitted Free Writing Prospectus as an Issuer Free Writing Prospectus, comply with the requirements of Rules 164 and 433 of the Rules and Regulations applicable to any Issuer Free Writing Prospectus, including the requirements relating to timely filing with the Commission, legending and record keeping and will not take any action that would result in the Underwriters or the Company being required to file with the Commission pursuant to Rule 433(d) of the Rules and Regulations a free writing prospectus prepared by or on behalf of such Underwriter that such Underwriter otherwise would not have been required to file thereunder.

(c) If at any time when a Prospectus relating to the Shares is required to be delivered under the Securities Act, any event occurs or condition exists as a result of which the Prospectus, as then amended or supplemented, would include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading, or the Registration Statement, as then amended or supplemented, would include any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein not misleading, or if for any other reason it is necessary at any time to amend or supplement any Registration Statement or the Prospectus to comply with the Securities Act or the Exchange Act, the Company will promptly notify the Representative, and upon the Representative’ request, the Company will promptly prepare and file with the Commission, at the Company’s expense, an amendment to the Registration Statement or an amendment or supplement to the Prospectus that corrects such statement or omission or effects such compliance and will deliver to the Underwriters, without charge, such number of copies thereof as the Underwriters may reasonably request. The Company consents to the use of the Prospectus or any amendment or supplement thereto by the Underwriters.

(d) If the General Disclosure Package is being used to solicit offers to buy the Shares at a time when the Prospectus is not yet available to prospective purchasers and

any event shall occur as a result of which, in the judgment of the Company or in the reasonable opinion of the Representative, it becomes necessary to amend or supplement the General Disclosure Package in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, or to make the statements therein not conflict with the information contained or incorporated by reference in the Registration Statement then on file and not superseded or modified, or if it is necessary at any time to amend or supplement the General Disclosure Package to comply with any law, the Company promptly will either (i) prepare, file with the Commission (if required) and furnish to the Underwriters and any dealers an appropriate amendment or supplement to the General Disclosure Package or (ii) prepare and file with the Commission an appropriate filing under the Exchange Act which shall be incorporated by reference in the General Disclosure Package so that the General Disclosure Package as so amended or supplemented will not, in the light of the circumstances under which they were made, be misleading or conflict with the Registration Statement then on file, or so that the General Disclosure Package will comply with law.

(e) If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or will conflict with the information contained in the Registration Statement, Pricing Prospectus or Prospectus, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof and not superseded or modified or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, the Company has promptly notified or will promptly notify the Representative so that any use of the Issuer Free Writing Prospectus may cease until it is amended or supplemented and has promptly amended or will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus in reliance upon, and in conformity with, written information furnished to the Company by the Representative by or on behalf of the Underwriters specifically for inclusion therein, which information the parties hereto agree is limited to the Underwriters' Information (as defined in [Section 16](#)).

(f) To the extent not available on the Commission's EDGAR system or any successor system, to furnish promptly to the Underwriters and to counsel for the Underwriters a signed copy of the Registration Statement as originally filed with the Commission, and of each amendment thereto filed with the Commission, including all consents and exhibits filed therewith.

(g) To the extent not available on the Commission's EDGAR system or any successor system, to deliver promptly to the Representative in New York City such number of the following documents as the Representative shall reasonably request: (i) conformed copies of the Registration Statement as originally filed with the Commission (in each case excluding exhibits), (ii) each Preliminary Prospectus (if any),

(iii) any Issuer Free Writing Prospectus, (iv) the Prospectus (the delivery of the documents referred to in clauses (i), (ii), (iii) and (iv) of this paragraph (g) to be made not later than 10:00 A.M., New York time, on the business day following the execution and delivery of this Agreement), (v) conformed copies of any amendment to the Registration Statement (excluding exhibits), (vi) any amendment or supplement to the General Disclosure Package or the Prospectus (the delivery of the documents referred to in clauses (v) and (vi) of this paragraph (g) to be made not later than 10:00 A.M., New York City time, on the business day following the date of such amendment or supplement) and (vii) any document incorporated by reference in the General Disclosure Package or the Prospectus (excluding exhibits thereto) (the delivery of the documents referred to in clause (vi) of this paragraph (g) to be made not later than 10:00 A.M., New York City time, on the business day following the date of such document).

(h) To make generally available to its stockholders as soon as practicable, but in any event not later than eighteen (18) months after the effective date of each Registration Statement (as defined in Rule 158(c) of the Rules and Regulations), an earnings statement of the Company and its subsidiaries (which need not be audited) complying with Section 11(a) of the Securities Act and the Rules and Regulations (including, at the option of the Company, Rule 158); and to furnish to its stockholders after the end of each fiscal year an annual report (including a balance sheet and statements of income, stockholders' equity and cash flows of the Company and its consolidated subsidiaries certified by independent public accountants) and after each of the first three fiscal quarters of each fiscal year (beginning with the first fiscal quarter after the effective date of such Registration Statement), consolidated summary financial information of the Company and its subsidiaries for such quarter in reasonable detail.

(i) To take promptly from time to time such actions as the Representative may reasonably request to qualify the Shares for offering and sale under the securities or blue sky laws of such jurisdictions (domestic or foreign) as the Representative may designate and to continue such qualifications in effect, and to comply with such laws, for so long as required to permit the offer and sale of Shares in such jurisdictions; provided that the Company and its subsidiaries shall not be obligated to qualify as foreign corporations in any jurisdiction in which they are not so qualified or to file a general consent to service of process in any jurisdiction.

(j) Upon request, during the period of three (3) years from the date hereof, to the extent not available on the Commission's EDGAR system or any successor system, to deliver to the Underwriters, as soon as they are available (i) copies of all reports or other communications furnished to stockholders, and (ii) copies of any reports and financial statements furnished or filed with the Commission or any national securities exchange or automatic quotation system on which the Common Stock is listed or quoted.

(k) That the Company will not, for a period of sixty (60) days from the date of the Prospectus, (the "**Lock-Up Period**") without the prior written consent of LCM, directly or indirectly offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, any shares of Common Stock or any securities convertible into or exercisable

or exchangeable for Common Stock, other than (i) the Company's sale of the Shares hereunder, (ii) pursuant to the Company's director or employee benefit plans, qualified stock option plans or other employee compensation plans as such plans are in existence on the date hereof and described in the Prospectus and the issuance of Common Stock pursuant to the valid exercises of options, warrants or rights outstanding on the date hereof, (iii) pursuant to the conversion of securities or the exercise of warrants outstanding at the date of the Prospectus and described in the General Disclosure Package, or (iv) the issuance of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock in connection with any arm's-length bona fide joint ventures, commercial relationships or other strategic transactions not involving an affiliate of the Company, provided that the aggregate number of shares of Common Stock so issued pursuant to this clause (iv) shall not exceed 5% of the outstanding shares immediately following the completion (closing) of this offering. The Company will cause each executive officer and director listed in Schedule B to furnish to the Underwriters, prior to the Closing Date, a letter, substantially in the form of Exhibit A hereto. The Company also agrees that during such period, the Company will not file any registration statement, preliminary prospectus or prospectus, or any amendment or supplement thereto, under the Securities Act for any such transaction or which registers, or offers for sale, Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, except for (i) a registration statement on Form S-8 relating to employee benefit plans and (ii) any resale registration statement required by any registration rights or similar rights to have any securities registered by the Company under the Securities Act described in the General Disclosure Package during the Lock-Up Period. The Company hereby agrees that (i) if it issues an earnings release or material news, or if a material event relating to the Company occurs, during the last seventeen (17) days of the Lock-Up Period, or (ii) if prior to the expiration of the Lock-Up Period, the Company announces that it will release earnings results during the sixteen (16)-day period beginning on the last day of the Lock-Up Period, the restrictions imposed by this paragraph (k) or the letter shall continue to apply until the expiration of the eighteen (18)-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

(l) To the extent not available on EDGAR, to supply the Representative with copies of all correspondence to and from, and all documents issued to and by, the Commission in connection with the registration of the Shares under the Securities Act or the Registration Statement, any Preliminary Prospectus or the Prospectus, or any amendment or supplement thereto.

(m) Prior to the Closing Date, and any Option Closing Date, to furnish to the Representative, as soon as they have been prepared, copies of any unaudited interim consolidated financial statements of the Company for any periods subsequent to the periods covered by the financial statements appearing in the Registration Statement and the Prospectus.

(n) Prior to the Closing Date, and any Option Closing Date, not to issue any press release or other communication directly or indirectly or hold any press conference

with respect to the Company, its condition, financial or otherwise, or earnings, business affairs or business prospects (except for routine oral marketing communications in the ordinary course of business and consistent with the past practices of the Company, and of which the Representative is notified), without the prior written consent of the Representative, unless in the judgment of the Company and its counsel, and after notification to the Representative, such press release or communication is required by law or applicable stock exchange rules.

(o) Until the Representative shall have notified the Company of the completion of the Offering, that the Company will not, and will cause its affiliated purchasers (as defined in Regulation M under the Exchange Act) not to, either alone or with one or more other persons, bid for or purchase, for any account in which it or any of its affiliated purchasers has a beneficial interest, any Shares, or attempt to induce any person to purchase any Shares; and not to, and to cause its affiliated purchasers not to, make bids or purchases for the purpose of creating actual, or apparent, active trading in or of raising the price of the Shares.

(p) Not to take any action prior to the Closing Date, and any Option Closing Date, which would require the Prospectus to be amended or supplemented pursuant to Section 4.

(q) To at all times comply with all applicable provisions of the Sarbanes-Oxley Act in effect from time to time.

(r) To apply the net proceeds from the sale of the Shares as set forth in the Registration Statement, the General Disclosure Package and the Prospectus under the heading "Use of Proceeds."

(s) To use its best efforts to assist the Underwriters and their counsel with any filings with, and to obtain clearance from, FINRA.

(t) To use its best efforts to list, subject to notice of issuance, effect and maintain the quotation and listing of the Shares on the NYSE MKT.

(u) To use its best efforts to do and perform all things required to be done or performed under this Agreement by the Company prior to the Closing Date, and any Option Closing Date, and to satisfy all conditions precedent to the delivery of the Firm Shares and Additional Shares, if any.

5. *PAYMENT OF EXPENSES*. The Company agrees to pay, or reimburse if paid by the Underwriters, upon consummation of the transactions contemplated hereby: (a) the costs incident to the authorization, issuance, sale, preparation and delivery of the Shares to the Underwriters and any taxes payable in that connection; (b) the costs incident to the registration of the Shares under the Securities Act; (c) the costs incident to the preparation, printing and distribution of the Registration Statement, the Base Prospectus, any Preliminary Prospectus, any Issuer Free Writing Prospectus, the General Disclosure Package, the Prospectus, any amendments, supplements and exhibits thereto or any document incorporated by reference

therein and the costs of printing, reproducing and distributing any transaction document by mail or other means of communications; (d) the reasonable fees and expenses (including related fees and expenses of one counsel for the Underwriters) incurred in connection with securing any required review by FINRA of the terms of the sale of the Shares and any filings made with FINRA; (e) any applicable listing, quotation or other fees; (f) the reasonable fees and expenses (including related fees and expenses of counsel to the Underwriters) of qualifying the Shares under the securities laws of the several jurisdictions as provided in Section 4(i) and of preparing, printing and distributing wrappers, and “Blue Sky Memoranda,” provided that the total fees and expenses of counsel to the Underwriters to be paid by the Company under this Section 5(f) shall not exceed \$10,000; (g) the cost of preparing and printing stock certificates, if any; (h) all fees and expenses of the registrar and transfer agent of the Shares; (i) the fees and expenses of counsel to the Underwriters; and (j) all other costs and expenses incident to the Offering or the performance of the obligations of the Company under this Agreement (including, without limitation, the fees and expenses of the Company’s counsel and the Company’s independent accountants and the travel and other expenses incurred by Company’s personnel in connection with any “road show” including, without limitation, any expenses advanced by the Underwriters on the Company’s behalf (which will be promptly reimbursed)); *provided, however*, that, except to the extent otherwise provided in Sections 7 and 9, the Company shall not be liable for the Underwriters’ expenses in excess of \$150,000, including without limitation those expenses set forth in Sections 5(f) and (i), above.

6. *CONDITIONS TO THE OBLIGATIONS OF THE UNDERWRITERS, AND THE SALE OF THE SHARES.* The respective obligations of the Underwriters hereunder, and the closing of the sale of the Shares, are subject to the accuracy, when made and as of the Applicable Time and on the Closing Date and any Option Closing Date, of the representations and warranties of the Company contained herein, to the accuracy of the statements of the Company made in any certificates pursuant to the provisions hereof, to the performance by the Company of its obligations hereunder, and to each of the following additional terms and conditions:

(a) No stop order suspending the effectiveness of the Registration Statement or any part thereof, preventing or suspending the use of any Base Prospectus, any Preliminary Prospectus, the Prospectus or any Permitted Free Writing Prospectus or any part thereof shall have been issued and no proceedings for that purpose or pursuant to Section 8A under the Securities Act shall have been initiated or threatened by the Commission, and all requests for additional information on the part of the Commission (to be included or incorporated by reference in the Registration Statement or the Prospectus or otherwise) shall have been complied with to the reasonable satisfaction of the Representative; the Rule 462(b) Registration Statement, if any, each Issuer Free Writing Prospectus, if any, and the Prospectus shall have been filed with the Commission within the applicable time period prescribed for such filing by, and in compliance with, the Rules and Regulations and in accordance with Section 4(a), and the Rule 462(b) Registration Statement, if any, shall have become effective immediately upon its filing with the Commission; and FINRA shall have raised no objection to the fairness and reasonableness of the terms of this Agreement or the transactions contemplated hereby.

(b) The Representative shall not have discovered and disclosed to the

Company on or prior to the Closing Date and any Option Closing Date that the Registration Statement or any amendment or supplement thereto contains an untrue statement of a fact which, in the reasonable opinion of counsel for the Underwriters, is material or omits to state any fact which, in the reasonable opinion of such counsel, is material and is required to be stated therein or is necessary to make the statements therein not misleading, or that the General Disclosure Package, any Issuer Free Writing Prospectus or the Prospectus or any amendment or supplement thereto contains an untrue statement of fact which, in the reasonable opinion of such counsel, is material or omits to state any fact which, in the reasonable opinion of such counsel, is material and is necessary in order to make the statements, in the light of the circumstances in which they were made, not misleading.

(c) All corporate proceedings and other legal matters incident to the authorization, form and validity of each of this Agreement, the Shares, the Registration Statement, the General Disclosure Package, each Issuer Free Writing Prospectus, if any, and the Prospectus and all other legal matters relating to this Agreement and the transactions contemplated hereby shall be reasonably satisfactory in all material respects to counsel for the Underwriters, and the Company shall have furnished to such counsel all documents and information that they may reasonably request to enable them to pass upon such matters.

(d) DLA Piper LLP shall have furnished to the Representative such counsel's written opinion and negative assurances statement, as counsel to the Company, addressed to the Underwriters and dated the Closing Date, and any Option Closing Date (if such date is other than the Closing Date), in form and substance reasonably satisfactory to the Representative.

(e) Wilson Sonsini Goodrich & Rosati P.C., intellectual property counsel to the Company, shall have furnished to the Representative, such counsel's written opinion, with respect to intellectual property matters, addressed to the Underwriters dated the Closing Date and any Option Closing Date (if such date is other than the Closing Date), in form and substance reasonably satisfactory to the Representative.

(f) The Underwriters shall have received from Proskauer Rose LLP, counsel for the Underwriters, such opinion and negative assurances statement, dated the Closing Date and any Option Closing Date (if such date is other than the Closing Date), with respect to such matters as the Representative may reasonably require, and the Company shall have furnished to such counsel such documents as they request for enabling them to pass upon such matters.

(g) At the time of the execution of this Agreement, the Representative shall have received from Mayer Hoffman McCann P.C. a letter, addressed to the Underwriters, executed and dated such date, in form and substance satisfactory to the Representative (A) confirming that they are an independent registered accounting firm with respect to the Company and its subsidiaries within the meaning of the Securities Act and the Rules and Regulations and PCAOB and (B) stating the conclusions and findings of such firm, of the type ordinarily included in accountants' "comfort letters" to underwriters, with

respect to the financial statements and certain financial information contained or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus.

(h) On the effective date of any post-effective amendment to any Registration Statement and on the Closing Date and any Option Closing Date (if such date is other than the Closing Date), the Representative shall have received a letter (the “**Bring-Down Letter**”) from Mayer Hoffman McCann P.C. addressed to the Underwriters and dated the Closing Date and any Option Closing Date (if such date is other than the Closing Date) confirming, as of the date of the Bring-Down Letter (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the General Disclosure Package and the Prospectus, as the case may be, as of a date not more than three (3) business days prior to the date of the Bring-Down Letter), the conclusions and findings of such firm, of the type ordinarily included in accountants’ “comfort letters” to underwriters, with respect to the financial information and other matters covered by its letter delivered to the Representative concurrently with the execution of this Agreement pursuant to paragraph (g) of this [Section 6](#).

(i) The Company shall have furnished to the Representative a certificate, dated the Closing Date and any Option Closing Date (if such date is other than the Closing Date), of its Chairman of the Board, Chief Executive Officer or its President and its Chief Financial Officer or a Vice President of Finance, each in his capacity as an officer of the Company, stating that (i) since the effective date of the Registration Statement, no event has occurred which should have been set forth in a supplement or amendment to the Registration Statement, the General Disclosure Package or the Prospectus that has not been so set forth therein, (ii) to the best of their knowledge after reasonable investigation, as of the Closing Date and any Option Closing Date (if such date is other than the Closing Date), the representations and warranties of the Company in this Agreement are true and correct, and the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date and any Option Closing Date (if such date is other than the Closing Date), and (iii) there has not been, subsequent to the date of the most recent audited financial statements included or incorporated by reference in the General Disclosure Package, any material adverse change in the financial position or results of operations of the Company and its subsidiaries or any change or development that, singly or in the aggregate, would involve a material adverse change or a prospective material adverse change, in or affecting the condition (financial or otherwise), results of operations, business, assets or prospects of the Company and its subsidiaries taken as a whole, except as set forth in the Prospectus.

(j) Since the date of the latest audited financial statements included in the General Disclosure Package or incorporated by reference in the General Disclosure Package as of the date hereof, (i) neither the Company nor any of its subsidiaries shall have sustained any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court

or governmental action, order or decree, otherwise than as set forth in the General Disclosure Package, and (ii) there shall not have been any change in the capital stock or short-term or long-term debt of the Company or any of its subsidiaries, or any change, or any development involving a prospective change, in or affecting the business, general affairs, management, financial position, stockholders' equity or results of operations of the Company and its subsidiaries otherwise than as set forth in the General Disclosure Package or as a result of the exercise of securities in connection with any benefit plan or similar plan, the effect of which, in any such case described in clause (i) or (ii) of this paragraph (j), is, in the judgment of the Representative, so material and adverse as to make it impracticable or inadvisable to proceed with the sale or delivery of the Shares on the terms and in the manner contemplated in the General Disclosure Package.

(k) No action shall have been taken and no law, statute, rule, regulation or order shall have been enacted, adopted or issued by any governmental agency or body which would prevent the issuance or sale of the Shares or materially and adversely affect or potentially materially and adversely affect the business or operations of the Company or its subsidiaries and no injunction, restraining order or order of any other nature by any federal or state court of competent jurisdiction shall have been issued which would prevent the issuance or sale of the Shares or materially and adversely affect or potentially materially and adversely affect the business or operations of the Company or its subsidiaries.

(l) Subsequent to the execution and delivery of this Agreement there shall not have occurred any of the following: (i) trading in securities generally on the New York Stock Exchange, Nasdaq Stock Market or the NYSE MKT or in the over-the-counter market, or trading in any securities of the Company on any exchange or in the over-the-counter market, shall have been suspended or materially limited, or minimum or maximum prices or maximum range for prices shall have been established on any such exchange or such market by the Commission, by such exchange or market or by any other regulatory body or governmental authority having jurisdiction, (ii) a banking moratorium shall have been declared by Federal or state authorities or a material disruption has occurred in commercial banking or securities settlement or clearance services in the United States, (iii) the United States shall have become engaged in hostilities, or the subject of an act of terrorism, or there shall have been an outbreak of or escalation in hostilities involving the United States, or there shall have been a declaration of a national emergency or war by the United States or (iv) there shall have occurred such a material adverse change in general economic, political or financial conditions (or the effect of international conditions on the financial markets in the United States shall be such) as to make it, in the judgment of the Representative, impracticable or inadvisable to proceed with the sale or delivery of the Shares on the terms and in the manner contemplated in the General Disclosure Package and the Prospectus.

(m) The Company shall have filed a Notification: Listing of Additional Shares with the NYSE MKT and shall have received no objection thereto from the NYSE MKT.

(n) FINRA shall have raised no objection to the fairness and reasonableness of the terms of this Agreement or the transactions contemplated hereby.

(o) The Representative shall have received the written agreements, substantially in the form of Exhibit A hereto, of the executive officers and directors of the Company listed in Schedule B to this Agreement.

(p) Prior to the Closing Date, the Company shall have furnished to the Representative such further information, good standing of the Company, opinions, certificates (including a Secretary's Certificate), letters or such other documents as the Representative shall have reasonably requested.

(q) The several obligations of the Underwriters to purchase Additional Shares, if any, hereunder are subject to the delivery to the Representative on the applicable Option Closing Date of such documents as it may reasonably request with respect to the good standing of the Company, opinions, comfort letters, certificates, letters, documents, the due authorization and issuance of the Additional Shares to be sold on such Option Closing Date, and other matters related to the issuance of such Additional Shares.

All opinions, letters, evidence and certificates mentioned above or elsewhere in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in form and substance reasonably satisfactory to counsel for the Underwriters.

7. INDEMNIFICATION AND CONTRIBUTION.

The Company shall indemnify and hold harmless each Underwriter, each of its affiliates and each of its and their respective directors, officers, members, employees, representative and agents (including, without limitation Lazard Frères & Co. LLC, (which will provide services to LCM) and its affiliates, and each of its and their respective directors, officers, members, employees, representative and agents and each person, if any, who controls Lazard Frères & Co. LLC within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) and each person, if any, who controls such Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (collectively, the **"Underwriter Indemnified Parties,"** and each a **"Underwriter Indemnified Party"**) against any loss, claim, damage, expense or liability whatsoever (or any action, investigation or proceeding in respect thereof), joint or several, to which such Underwriter Indemnified Party may become subject, under the Securities Act or otherwise, insofar as such loss, claim, damage, expense, liability, action, investigation or proceeding arises out of or is based upon (A) any untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) of the Rules and Regulations, any Registration Statement or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein, (B) the omission or alleged omission to state in any Preliminary Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed

pursuant to Rule 433(d) of the Rules and Regulations, any Registration Statement or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein, a material fact required to be stated therein or necessary to make the statements therein not misleading, or (C) arising out of that certain Warrant Solicitation Agency Agreement or Placement Agency Agreement with Spencer Trask Ventures, Inc. in February 2013 and any claims that may be made thereunder, and shall reimburse the Underwriter Indemnified Party promptly upon demand for any legal fees or other expenses reasonably incurred by that Underwriter Indemnified Party in connection with investigating, or preparing to defend, or defending against, settling, compromising or appearing as a third party witness in respect of, or otherwise incurred in connection with, any such loss, claim, damage, expense, liability, action, investigation or proceeding, as such fees and expenses are incurred; provided, however, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage, expense or liability arises out of or is based upon an untrue statement or alleged untrue statement in, or omission or alleged omission from any Preliminary Prospectus, any Registration Statement or the Prospectus, or any such amendment or supplement thereto, or any Issuer Free Writing Prospectus made in reliance upon and in conformity with written information furnished to the Company by the Representative by or on behalf of the Underwriters specifically for use therein, which information the parties hereto agree is limited to the Underwriters' Information (as defined in [Section 16](#)). This indemnity agreement is not exclusive and will be in addition to any liability which the Company might otherwise have and shall not limit any rights or remedies which may otherwise be available at law or in equity to each Underwriter Indemnified Party.

(b) Each Underwriter, severally and not jointly, shall indemnify and hold harmless the Company and its directors, its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (collectively, the "**Company Indemnified Parties**," and each a "**Company Indemnified Party**") against any loss, claim, damage, expense or liability whatsoever (or any action, investigation or proceeding in respect thereof), joint or several, to which such Company Indemnified Party may become subject, under the Securities Act or otherwise, insofar as such loss, claim, damage, expense, liability, action, investigation or proceeding arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) of the Rules and Regulations, any Registration Statement or the Prospectus, or in any amendment or supplement thereto, or (ii) the omission or alleged omission to state in any Preliminary Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) of the Rules and Regulations, any Registration Statement or the Prospectus, or in any amendment or supplement thereto, a material fact required to be stated therein or necessary to make the statements therein not misleading, but in each case only to the extent that the untrue statement or alleged untrue statement or omission or alleged omission was made in reliance upon and in conformity

with written information furnished to the Company by the Representative by or on behalf of any Underwriter specifically for use therein, which information the parties hereto agree is limited to the Underwriters' Information as defined in Section 16, and shall reimburse the Company Indemnified Party for any legal or other expenses reasonably incurred by such party in connection with investigating or preparing to defend or defending against or appearing as third party witness in connection with any such loss, claim, damage, liability, action, investigation or proceeding, as such fees and expenses are incurred. This indemnity agreement is not exclusive and will be in addition to any liability which such Underwriter might otherwise have and shall not limit any rights or remedies which may otherwise be available at law or in equity to each Company Indemnified Party. Notwithstanding the provisions of this Section 7(b), in no event shall any indemnity by any Underwriter under this Section 7(b) exceed the total discount and commission received by such Underwriter in connection with the Offering.

(c) Promptly after receipt by an indemnified party under this Section 7 of notice of the commencement of any action, the indemnified party shall, if a claim in respect thereof is to be made against an indemnifying party under this Section 7, notify such indemnifying party in writing of the commencement of that action; *provided, however*, that the failure to notify the indemnifying party shall not relieve it from any liability which it may have under this Section 7 except to the extent it has been materially prejudiced by such failure; and, *provided, further*, that the failure to notify an indemnifying party shall not relieve it from any liability which it may have to an indemnified party otherwise than under this Section 7. If any such action shall be brought against an indemnified party, and it shall notify the indemnifying party thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it wishes, jointly with any other similarly notified indemnifying party, to assume the defense of such action with counsel reasonably satisfactory to the indemnified party (which counsel shall not, except with the written consent of the indemnified party, be counsel to the indemnifying party). After notice from the indemnifying party to the indemnified party of its election to assume the defense of such action, except as provided herein, the indemnifying party shall not be liable to the indemnified party under Section 7 for any legal or other expenses subsequently incurred by the indemnified party in connection with the defense of such action other than reasonable costs of investigation; *provided, however*, that any indemnified party shall have the right to employ separate counsel in any such action and to participate in the defense of such action but the fees and expenses of such counsel (other than reasonable costs of investigation) shall be at the expense of such indemnified party unless (i) the employment thereof has been specifically authorized in writing by the Company in the case of a claim for indemnification under Section 7(a) or LCM in the case of a claim for indemnification under Section 7(b), (ii) such indemnified party shall have been advised by its counsel that there may be one or more legal defenses available to it which are different from or additional to those available to the indemnifying party, or (iii) the indemnifying party has failed to assume the defense of such action and employ counsel reasonably satisfactory to the indemnified party within a reasonable period of time after notice of the commencement of the action or the indemnifying party does not diligently defend the action after assumption of the defense, in which case, if such indemnified party notifies

the indemnifying party in writing that it elects to employ separate counsel at the expense of the indemnifying party, the indemnifying party shall not have the right to assume the defense of (or, in the case of a failure to diligently defend the action after assumption of the defense, to continue to defend) such action on behalf of such indemnified party and the indemnifying party shall be responsible for legal or other expenses subsequently incurred by such indemnified party in connection with the defense of such action; *provided, however*, that the indemnifying party shall not, in connection with any one such action or separate but substantially similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances, be liable for the reasonable fees and expenses of more than one separate firm of attorneys at any time for all such indemnified parties (in addition to any local counsel), which firm shall be designated in writing by LCM if the indemnified parties under this Section 7 consist of any Underwriter Indemnified Party or by the Company if the indemnified parties under this Section 7 consist of any Company Indemnified Parties. Subject to this Section 7(c), the amount payable by an indemnifying party under Section 7 shall include, but not be limited to, (x) reasonable legal fees and expenses of counsel to the indemnified party and any other expenses in investigating, or preparing to defend or defending against, or appearing as a third party witness in respect of, or otherwise incurred in connection with, any action, investigation, proceeding or claim, and (y) all amounts paid in settlement of any of the foregoing. No indemnifying party shall, without the prior written consent of the indemnified parties, settle or compromise or consent to the entry of judgment with respect to any pending or threatened action or any claim whatsoever, in respect of which indemnification or contribution could be sought under this Section 7 (whether or not the indemnified parties are actual or potential parties thereto), unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party in form and substance reasonably satisfactory to such indemnified party from all liability arising out of such action or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party. Subject to the provisions of the following sentence, no indemnifying party shall be liable for settlement of any pending or threatened action or any claim whatsoever that is effected without its written consent (which consent shall not be unreasonably withheld or delayed), but if settled with its written consent, if its consent has been unreasonably withheld or delayed or if there be a judgment for the plaintiff in any such matter, the indemnifying party agrees to indemnify and hold harmless any indemnified party from and against any loss or liability by reason of such settlement or judgment. In addition, if at any time an indemnified party shall have requested that an indemnifying party reimburse the indemnified party for fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated herein effected without its written consent if (i) such settlement is entered into more than forty-five (45) days after receipt by such indemnifying party of the request for reimbursement, (ii) such indemnifying party shall have received notice of the terms of such settlement at least thirty (30) days prior to such settlement being entered into and (iii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

(d) If the indemnification provided for in this Section 7 is unavailable or insufficient to hold harmless an indemnified party under Section 7(a) or Section 7(b), then each indemnifying party shall, in lieu of indemnifying such indemnified party, contribute to the amount paid, payable or otherwise incurred by such indemnified party as a result of such loss, claim, damage, expense or liability (or any action, investigation or proceeding in respect thereof), as incurred, (i) in such proportion as shall be appropriate to reflect the relative benefits received by the Company on the one hand and each of the Underwriters on the other hand from the Offering, or (ii) if the allocation provided by clause (i) of this Section 7(d) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) of this Section 7(d), but also the relative fault of the Company on the one hand and the Underwriters on the other with respect to the statements, omissions, acts or failures to act which resulted in such loss, claim, damage, expense or liability (or any action, investigation or proceeding in respect thereof) as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other with respect to the Offering shall be deemed to be in the same proportion as the total net proceeds from the Offering under this Agreement (before deducting expenses) received by the Company bear to the total underwriting discount and commission received by the Underwriters in connection with the Offering, in each case as set forth in the table on the cover page of the Prospectus. The relative fault of the Company on the one hand and the Underwriters on the other shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Underwriters on the other, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such untrue statement, omission, act or failure to act; *provided* that the parties hereto agree that the written information furnished to the Company by the Representative by or on behalf of any Underwriter for use in any Preliminary Prospectus, any Registration Statement or the Prospectus, or in any amendment or supplement thereto, consists solely of the Underwriters' Information as defined in Section 16. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 7(d) were to be determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, damage, expense, liability, action, investigation or proceeding referred to above in this Section 7(d) shall be deemed to include, for purposes of this Section 7(d), any legal or other expenses reasonably incurred by such indemnified party in connection with investigating, preparing to defend or defending against or appearing as a third party witness in respect of, or otherwise incurred in connection with, any such loss, claim, damage, expense, liability, action, investigation or proceeding. Notwithstanding the provisions of this Section 7(d), no Underwriter shall be required to contribute any amount in excess of the total discount and commission received by such Underwriter in connection with the Offering, less the amount of any damages which such Underwriter has otherwise paid or become liable to pay by reason of any untrue or alleged untrue statement, omission or alleged omission, act or alleged act or failure to act or alleged failure to act. No person guilty of fraudulent

misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

8. *TERMINATION*. The obligations of the Underwriters hereunder may be terminated by the Representative, in its absolute discretion by notice given to the Company prior to delivery of and payment for the Shares if, prior to that time, any of the events described in Sections 6(j), 6(k), or 6(l) have occurred or if the Underwriters shall decline to purchase the Shares for any reason permitted under this Agreement.

9. *REIMBURSEMENT OF UNDERWRITERS' EXPENSES*. Notwithstanding anything to the contrary in this Agreement, if (a) this Agreement shall have been terminated pursuant to Section 8, (b) the Company shall fail to tender the Shares for delivery to the Underwriters for any reason not permitted under this Agreement, (c) the Underwriters shall decline to purchase the Shares for any reason permitted under this Agreement or (d) the sale of the Shares is not consummated because any condition to the obligations of the Underwriters set forth herein is not satisfied or because of the refusal, inability or failure on the part of the Company to perform any agreement herein or to satisfy any condition or to comply with the provisions hereof, then, in addition to the payment of out-of-pocket expenses in accordance with Section 5, the Company shall reimburse the Underwriters for the fees and expenses of the Underwriters' counsel and for such other accountable out-of-pocket expenses as shall have been reasonably incurred by them in connection with this Agreement and the proposed purchase of the Shares, and upon demand the Company shall pay the full amount thereof to the Representative on behalf of the Underwriters.

10. *ABSENCE OF FIDUCIARY RELATIONSHIP*. The Company acknowledges and agrees that:

(a) Each Underwriter's responsibility to the Company is solely contractual in nature, each Underwriter has been retained solely to act as an underwriter in connection with the Offering and no fiduciary, advisory or agency relationship between the Company and such Underwriter has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether LCM, Oppenheimer, JMP, Maxim or Lazard Frères & Co. LLC has advised or is advising the Company on other matters;

(b) the price of the Shares set forth in this Agreement was established by the Company following discussions and arms-length negotiations with the Representative, and the Company is capable of evaluating and understanding, and understands and accepts, the terms, risks and conditions of the transactions contemplated by this Agreement;

(c) it has been advised that LCM, Oppenheimer, JMP, Maxim and Lazard Frères & Co. LLC and each of their affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and that the Underwriters have no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; and

(d) it waives, to the fullest extent permitted by law, any claims it may have against the Underwriters for breach of fiduciary duty or alleged breach of fiduciary duty and agrees that the Underwriters shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary duty claim or to any person asserting a fiduciary duty claim on behalf of or in right of the Company, including stockholders, employees or creditors of the Company.

11. *SUCCESSORS; PERSONS ENTITLED TO BENEFIT OF AGREEMENT.* This Agreement shall inure to the benefit of and be binding upon the several Underwriters, the Company, and their respective successors and assigns. This Agreement shall also inure to the benefit of Lazard Frères & Co. LLC, and each of its successors and assigns, which shall be third party beneficiaries hereof. Notwithstanding the foregoing, the determination as to whether any condition in Section 6 hereof shall have been satisfied, and the waiver of any condition in Section 6 hereof, may be made by the Representative in its sole discretion, and any such determination or waiver shall be binding on each of the Underwriters and shall not require the consent of any Underwriter. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, other than the persons mentioned in the preceding sentences, any legal or equitable right, remedy or claim under or in respect of this Agreement, or any provisions herein contained, this Agreement and all conditions and provisions hereof being intended to be and being for the sole and exclusive benefit of such persons and for the benefit of no other person; except that the representations, warranties, covenants, agreements and indemnities of the Company contained in this Agreement shall also be for the benefit of the Underwriter Indemnified Parties and the several indemnities of the Underwriters shall be for the benefit of the Company Indemnified Parties. It is understood that each Underwriter's responsibility to the Company is solely contractual in nature and the Underwriters do not owe the Company, or any other party, any fiduciary duty as a result of this Agreement.

12. *SURVIVAL OF INDEMNITIES, REPRESENTATIONS, WARRANTIES, ETC.* The respective indemnities, covenants, agreements, representations, warranties and other statements of the Company and the several Underwriters, as set forth in this Agreement or made by them respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation made by or on behalf of any Underwriter, the Company or any person controlling any of them and shall survive delivery of and payment for the Shares. Notwithstanding any termination of this Agreement, including without limitation any termination pursuant to Section 8, the indemnity and contribution and reimbursement agreements contained in Sections 7 and 9 and the covenants, representations, warranties set forth in this Agreement shall not terminate and shall remain in full force and effect at all times.

13. *NOTICES.* All statements, requests, notices and agreements hereunder shall be in writing, and:

(a) if to the Representative, shall be delivered or sent by mail, facsimile transmission or email to Lazard Capital Markets LLC, 30 Rockefeller Plaza, New York, New York 10020, Attention: Legal Department, Fax: 212-641-2671; and

(b) if to the Company, shall be delivered or sent by mail, facsimile transmission or email to: Organovo Holdings, Inc., Attention: Barry Michaels, CFO, Fax: (858) 550-9948; with copies to (i) DLA Piper LLP, Attention: Jeffrey Thacker, Esq., Fax: (858) 638-5128;

provided, however, that any notice to the Underwriters pursuant to Section 7 shall be delivered or sent by mail or facsimile transmission to the Representative c/o Lazard Capital Markets LLC at the address set forth above in this Section 13. Any such statements, requests, notices or agreements shall take effect at the time of receipt thereof, except that any such statement, request, notice or agreement delivered or sent by email shall take effect at the time of confirmation of receipt thereof by the recipient thereof.

14. *DEFINITION OF CERTAIN TERMS*. For purposes of this Agreement, (a) “**business day**” means any day on which the New York Stock Exchange, Inc. is open for trading, (b) “**knowledge**” means the knowledge of the directors and officers of the Company after reasonable inquiry and (c) “**subsidiary**” has the meaning set forth in Rule 405 of the Rules and Regulations.

15. *GOVERNING LAW, AGENT FOR SERVICE AND JURISDICTION*. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, including without limitation Section 5-1401 of the New York General Obligations Law. No legal proceeding may be commenced, prosecuted or continued in any court other than the courts of the State of New York located in the City and County of New York or in the United States District Court for the Southern District of New York, which courts shall have jurisdiction over the adjudication of such matters, and the Company and the Underwriters each hereby consent to the jurisdiction of such courts and personal service with respect thereto. The Company and the Underwriters each hereby waive all right to trial by jury in any legal proceeding (whether based upon contract, tort or otherwise) in any way arising out of or relating to this Agreement. The Company agrees that a final judgment in any such legal proceeding brought in any such court shall be conclusive and binding upon the Company and the Underwriters and may be enforced in any other courts in the jurisdiction of which the Company is or may be subject, by suit upon such judgment.

16. *UNDERWRITERS' INFORMATION*. The parties hereto acknowledge and agree that, for all purposes of this Agreement, the “Underwriters’ Information” consists solely of the following information in the Prospectus: (i) the Underwriters’ names and titles as set forth on the front cover page; and; and (ii) the statements concerning the Underwriters contained in the first paragraph, in the fourth paragraph concerning the terms of the Offering, concerning the Underwriters and Lazard Frères & Co. LLC in the ninth paragraph, concerning stabilization by the Underwriters in the twelfth and thirteenth paragraphs, in each case under the heading “Underwriting.”

17. *PARTIAL UNENFORCEABILITY*. The invalidity or unenforceability of any section, paragraph, clause or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph, clause or provision hereof. If any section, paragraph, clause or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

18. *GENERAL*. This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. In this Agreement, the masculine, feminine and neuter genders and the singular and the plural include one another. The section headings in this Agreement are for the convenience of the parties only and will not affect the construction or interpretation of this Agreement. This Agreement may be amended or modified, and the observance of any term of this Agreement may be waived, only by a writing signed by the Company and the Representative.

19. *RESEARCH ANALYST INDEPENDENCE*. The Company acknowledges that each Underwriter's research analysts and research departments are required to be independent from its investment banking division and are subject to certain regulations and internal policies, and that such Underwriter's research analysts may hold views and make statements or investment recommendations and/or publish research reports with respect to the Company and/or the Offering that differ from the views of their investment banking division. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against either Underwriter with respect to any conflict of interest that may arise from the fact that the views expressed by its independent research analysts and research departments may be different from or inconsistent with the views or advice communicated to the Company by such Underwriter's investment banking division. The Company acknowledges that each Underwriter is a full service securities firm and as such from time to time, subject to applicable securities laws, rules and regulations, may effect transactions for its own account or the account of its customers and hold long or short positions in debt or equity securities of the Company; provided, however, that nothing in this Section 19 shall relieve either Underwriter of any responsibility or liability it may otherwise bear in connection with activities in violation of applicable securities laws, rules or regulations.

20. *EFFECTIVENESS; DEFAULTING UNDERWRITERS*. This Agreement shall become effective upon the execution and delivery hereof by the parties hereto. If, on the Closing Date or an Option Closing Date, as the case may be, any one or more of the Underwriters shall fail or refuse to purchase Shares that it has or they have agreed to purchase hereunder on such date, and the aggregate number of Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase is not more than one-tenth of the aggregate number of the Shares to be purchased on such date, the other Underwriters shall be obligated severally in the proportions that the number of Firm Shares set forth opposite their respective names in Schedule C bears to the aggregate number of Firm Shares set forth opposite the names of all such non-defaulting Underwriters, or in such other proportions as you may specify, to purchase the Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase on such date; provided that in no event shall the number of Shares that any Underwriter has agreed to purchase pursuant to this Agreement be increased pursuant to this Section 20 by an amount in excess of one-ninth of such number of Shares without the written consent of such Underwriter. If, on the Closing Date, any Underwriter or Underwriters shall fail or refuse to purchase Firm Shares and the aggregate number of Firm Shares with respect to which such default occurs is more than one-tenth of the aggregate number of Firm Shares to be purchased on such date, and arrangements satisfactory to you and the Company for the purchase of such Firm Shares are not made within thirty-six (36) hours after such default, this Agreement shall

terminate without liability on the part of any non-defaulting Underwriter or the Company. In any such case either you or the Company shall have the right to postpone the Closing Date, but in no event for longer than seven (7) days, in order that the required changes, if any, in the Registration Statement, in the Pricing Prospectus, in the Prospectus or in any other documents or arrangements may be affected. If, on an Option Closing Date, any Underwriter or Underwriters shall fail or refuse to purchase Additional Shares and the aggregate number of Additional Shares with respect to which such default occurs is more than one-tenth of the aggregate number of Additional Shares to be purchased on such Option Closing Date, the non-defaulting Underwriters shall have the option to (i) terminate their obligation hereunder to purchase the Additional Shares to be sold on such Option Closing Date or (ii) purchase not less than the number of Additional Shares that such non-defaulting Underwriters would have been obligated to purchase in the absence of such default. Any action taken under this paragraph shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

21. *COUNTERPARTS*. This Agreement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument and such signatures may be delivered by facsimile.

If the foregoing is in accordance with your understanding of the agreement between the Company and the Underwriters, kindly indicate your acceptance in the space provided for that purpose below.

Very truly yours,

ORGANOVO HOLDINGS, INC.

By: /s/ Keith Murphy

Name: Keith Murphy

Title: CEO

Confirmed as of the date first above mentioned, on behalf of themselves and the Underwriters named in Schedule C hereto:

LAZARD CAPITAL MARKETS LLC

By: /s/ William Buchanan, Jr.

Name: William Buchanan, Jr.

Title: CEO

DLA Piper LLP (US)

4365 Executive Drive
San Diego, California 92121-2133
T 858.677.1400
F 858.677.1401

August 2, 2013

Organovo Holdings, Inc.
6275 Nancy Ridge Drive, Suite 110
San Diego, CA 92121

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the sale and issuance by Organovo Holdings, Inc., a Delaware corporation (the “**Company**”), of up to an aggregate of 10,350,000 shares (the “**Shares**”) of the Company’s common stock, par value \$0.001 per share (the “**Common Stock**”), pursuant to a shelf registration statement on Form S-3 (File No. 333-189995) (the “**Registration Statement**”) filed with the Securities and Exchange Commission (the “**Commission**”) under the Securities Act of 1933, as amended (the “**Act**”), the related prospectus dated July 26, 2013 (the “**Base Prospectus**”), as supplemented by the prospectus supplement dated August 2, 2013 filed with the Commission pursuant to Rule 424(b) promulgated under the Act (together with the Base Prospectus, the “**Prospectus**”). The Shares include shares of Common Stock that are subject to an over-allotment option granted to the underwriters in the offering.

In connection with this opinion, we have examined and relied upon the Registration Statement and the Prospectus, the Company’s Certificate of Incorporation and Bylaws, as currently in effect, and the originals or copies certified to our satisfaction of such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below.

In rendering this opinion, we have assumed the genuineness and authenticity of all signatures on original documents; the genuineness and authenticity of all documents submitted to us as originals; the conformity to originals of all documents submitted to us as copies; the accuracy, completeness and authenticity of certificates of public officials; and the due authorization, execution and delivery of all documents where due authorization, execution and delivery are prerequisites to the effectiveness of such documents.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares have been duly and validly authorized and, when issued and sold pursuant to that certain Underwriting Agreement by and between the Company and Lazard Capital Markets LLC, as representative of the underwriters thereto, dated August 2, 2013, in accordance with the Registration Statement and the Prospectus, will be validly issued, fully paid and nonassessable.

We consent to the reference to our firm under the caption “Legal Matters” in the Prospectus and to the filing of this opinion as an exhibit to a Current Report of the Company on Form 8-K. In giving our consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ **DLA PIPER LLP (US)**
DLA PIPER LLP (US)

August 1, 2013

Organovo Holdings, Inc. Proposes Public Offering of Common Stock

SAN DIEGO –Organovo Holdings, Inc. (NYSE MKT: ONVO) today announced that it intends to offer and sell shares of its common stock in an underwritten public offering. The offering is subject to market conditions, and there can be no assurance as to whether or when the offering may be completed, or as to the actual size or terms of the offering. Organovo also expects to grant the underwriters a 30-day option to purchase up to an additional 15% of the shares of common stock offered in the public offering to cover over-allotments, if any. All of the shares in the offering are to be sold by Organovo.

Lazard Capital Markets LLC and Oppenheimer & Co. Inc. are acting as joint book-runners for the offering.

A shelf registration statement on Form S-3 relating to the public offering of the shares of common stock described above was filed with the Securities and Exchange Commission (SEC) and declared effective by the SEC on July 26, 2013. A preliminary prospectus supplement relating to and describing the terms of the offering will be filed with the SEC and will be available on the SEC's web site at www.sec.gov. When available, copies of the preliminary prospectus supplement relating to these securities may also be obtained from the offices of Lazard Capital Markets LLC at 30 Rockefeller Plaza, 60th Floor, New York, NY, 10020 or via telephone at (800) 542-0970, or the offices of Oppenheimer & Co. Inc., Attn: Syndicate Department, at 85 Broad Street, 26th Floor, New York, NY, 10004 or via email at equityprospectus@opco.com or via telephone at (212) 667-8563.

This press release does not constitute an offer to sell or the solicitation of an offer to buy any of these securities, nor will there be any sale of these securities in any state or other jurisdiction in which such offer, solicitation or sale is not permitted.

About Organovo Holdings, Inc.

Organovo designs and creates functional, three-dimensional human tissues for medical research and therapeutic applications. The company is collaborating with pharmaceutical and academic partners to develop human biological disease models in three dimensions. These 3D human tissues have the potential to accelerate the drug discovery process, enabling treatments to be developed faster and at lower cost. In addition to numerous scientific publications, their technology has been featured in The Wall Street Journal, Time Magazine, The Economist, and numerous others. Organovo is changing the shape of medical research and practice. Learn more at www.organovo.com.

Safe Harbor Statement

Any statements contained in this press release that do not describe historical facts may constitute forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. Any forward-looking statements contained herein are based on current expectations, but are subject to a number of risks and uncertainties. The factors that could cause actual future results to differ materially from current expectations include, but are not limited to, risks and uncertainties relating to the Company's ability to develop, market and sell products based on its technology; the expected benefits and efficacy of the Company's products and technology; the availability of substantial additional funding for the Company to continue its operations and to conduct research and development, clinical studies and future product commercialization; and the Company's business, research, product development, regulatory approval, marketing and distribution plans and strategies. These and other factors are identified and described in more detail in the Company's filings with the SEC, including the preliminary prospectus supplement filed with the SEC on August 1, 2013 and the transition report on Form 10-KT filed with the SEC on May 24, 2013 and its other filings with the Securities and Exchange Commission. You should not place undue reliance on these forward-looking statements, which speak only as of the date that they were made. These cautionary statements should be considered with any written or oral forward-looking statements that we may issue in the future. Except as required by applicable law, including the securities laws of the United States, we do not intend to update any of the forward-looking statements to conform these statements to reflect actual results, later events or circumstances or to reflect the occurrence of unanticipated events.

SOURCE Organovo Holdings, Inc.

Barry Michaels, Chief Financial Officer, 858-224-1003, IR@organovo.com;

Gerry Amato, Booke & Company Investor Relations, admin@bookeandco.com

August 2, 2013

Organovo Holdings, Inc. Prices \$40.5 Million Public Offering of Common Stock

SAN DIEGO – Organovo Holdings, Inc. (NYSE MKT: ONVO) today announced the sale of 9,000,000 shares of its common stock in an underwritten public offering at a price to the public of \$4.50 per share. The net offering proceeds to Organovo from the sale of the shares are expected to be approximately \$37.7 million, after deducting underwriting discounts and commissions and other estimated offering expenses, but excluding any exercise of the underwriters' over-allotment option.

The Company anticipates using the net proceeds from this offering for general corporate purposes, including research and development, the development and commercialization of its products, general administrative expenses, license or technology acquisitions, and working capital and capital expenditures.

The offering is expected to close on or about August 7, 2013, subject to customary closing conditions. In addition, the Company has granted the underwriters a 30-day option to purchase up to an additional 1,350,000 shares of common stock on the same terms and conditions, solely to cover over-allotments, if any.

Lazard Capital Markets LLC and Oppenheimer & Co. Inc. are acting as joint book-runners for the offering. JMP Securities LLC and Maxim Group LLC are each acting as co-managers for the offering.

The shares described above will be issued pursuant to a prospectus supplement filed as part of a shelf registration statement on Form S-3 previously filed with and declared effective by the Securities and Exchange Commission ("SEC"). The offering may be made only by means of a prospectus supplement and the accompanying prospectus, copies of which may be obtained by sending a request to: Lazard Capital Markets LLC, at 30 Rockefeller Plaza, New York, NY 10020 or via telephone at (800) 542-0970, or Oppenheimer & Co. Inc., Attn: Syndicate Department, at 85 Broad Street, 26th Floor, New York, NY, 10004 or via email at equityprospectus@opco.com or via telephone at (212) 667-8563. Organovo intends to file a final prospectus supplement relating to the offering with the SEC, which will be available along with the accompanying prospectus filed with the SEC in connection with the shelf registration, on the SEC's website at www.sec.gov.

This press release does not constitute an offer to sell or a solicitation of an offer to buy any securities of Organovo, nor shall there be any sale of securities in any state or jurisdiction in which such an offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction. This press release is being issued pursuant to and in accordance with Rule 134 under the Securities Act of 1933, as amended.

About Organovo Holdings, Inc.

Organovo designs and creates functional, three-dimensional human tissues for medical research and therapeutic applications. The company is collaborating with pharmaceutical and academic partners to develop human biological disease models in three dimensions. These 3D human tissues have the potential to accelerate the drug discovery process, enabling treatments to be developed faster and at lower cost. In addition to numerous scientific publications, their technology has been featured in The Wall Street Journal, Time Magazine, The Economist, and numerous others. Organovo is changing the shape of medical research and practice. Learn more at www.organovo.com.

Safe Harbor Statement

Any statements contained in this press release that do not describe historical facts may constitute forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. Any forward-looking statements contained herein are based on current expectations, but are subject to a number of risks and uncertainties. The factors that could cause actual future results to differ materially from current expectations include, but are not limited to, risks and uncertainties relating to the Company's ability to develop, market and sell products based on its technology; the expected benefits and efficacy of the Company's products and technology; the availability of substantial additional funding for the Company to continue its operations and to conduct research and development, clinical studies and future product commercialization; and the Company's business, research, product development, regulatory approval, marketing and distribution plans and strategies. These and other factors are identified and described in more detail in our filings with the SEC, including the prospectus supplement filed with the SEC on

August 2, 2013 and the transition report on Form 10-KT filed with the SEC on May 24, 2013 and our other filings with the Securities and Exchange Commission. You should not place undue reliance on these forward-looking statements, which speak only as of the date that they were made. These cautionary statements should be considered with any written or oral forward-looking statements that we may issue in the future. Except as required by applicable law, including the securities laws of the United States, we do not intend to update any of the forward-looking statements to conform these statements to reflect actual results, later events or circumstances or to reflect the occurrence of unanticipated events.

SOURCE Organovo Holdings, Inc.

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