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

AMENDMENT NO. 2 TO

SCHEDULE TO
TENDER OFFER STATEMENT UNDER SECTION 14(d)(1) OR 13(e)(1)
OF THE SECURITIES EXCHANGE ACT OF 1934

ORGANOVO HOLDINGS, INC.
(Name of Subject Company (Issuer) and Filing Person (Offeror))

WARRANTS TO PURCHASE COMMON STOCK
(Title of Class of Securities)

68620A 104
(CUSIP Number of Common Stock Underlying Warrants)

Keith Murphy
Chief Executive Officer and President
6275 Nancy Ridge Drive
San Diego, California 92121
Phone: (858) 550-9994
(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications on Behalf of Filing Person)

WITH COPY TO:

Jeff Thacker, Esq.
DLA Piper LLP (US)
4365 Executive Drive, Suite 1100
San Diego, California 92121
Tel: (858) 677-1400
Fax: (858) 677-1401

CALCULATION OF FILING FEE:

Transaction valuation(1)	Amount of filing fee(1)(2)
$34,100,681	$4,652

(1) Estimated for purposes of calculating the amount of the filing fee only. An offer to amend and exercise warrants to purchase an aggregate of 14,510,928 shares of common stock (the "**Offer to Amend and Exercise**"), including: (i) outstanding warrants to purchase 1,500,000 shares of the Company's common stock issued to investors participating in the Company's bridge financing completed in November 2011; (ii) outstanding warrants to purchase 11,653,678 shares of the Company's common stock issued to investors participating in the Company's private placement financings closed on February 8, 2012, February 29, 2012 and March 16, 2012; and (iii) outstanding warrants to purchase 1,357,250 shares of the Company's common stock issued to investors in the Company's private placement transactions completed in 2011. The transaction value is calculated pursuant to Rule 0-11 using $2.35 per share of common stock, which represents the average of the high and low sales price of the common stock on November 13, 2012.

(2) Calculated by multiplying the transaction value by 0.0001364.

☒ Check the box if any part of the fee is offset as provided by Rule 0-11(a)(2) and identify the filing with which the offsetting fee was previously paid. Identify the previous filing by registration statement number or the Form or Schedule and the date of its filing.

Amount Previously Paid: $4,652 — Filing Party: Organovo Holdings, Inc.
Form or Registration Number: 005-86817 — Date Filed: November 16, 2012

☐ Check the box if the filing relates solely to preliminary communications made before the commencement of a tender offer.

Check the appropriate boxes below to designate any transactions to which the statement relates:

- ☐ third party tender offer subject to Rule 14d-1.
- ☒ issuer tender offer subject to Rule 13e-4.
- ☐ going private transaction subject to Rule 13e-3.
- ☐ amendment to Schedule 13D under Rule 13d-2.

Check the following box if the filing is a final amendment reporting the results of a tender offer: ☐

The alphabetical subsections used in the Item responses below correspond to the alphabetical subsections of the applicable items of Regulation M-A promulgated under the federal securities laws.

If applicable, check the appropriate box(es) below to designate the appropriate note provision(s):

- ☐ Rule 13e-4(i) (Cross-Border Issuer Tender Offer)
- ☐ Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)

Explanatory Note

This Amendment No. 2 (this "Amendment No. 2") amends and supplements the Tender Offer Statement on Schedule TO originally filed with the Securities and Exchange Commission (the "SEC") on November 16, 2012 (the "Original Schedule TO"), as previously amended by Amendment No.1 filed with the SEC on November 23, 2012 ("Amendment No. 1" and together with the Original Schedule TO, the "Schedule TO") relating to an offer by Organovo Holdings, Inc. (the "Company") to amend warrants to purchase an aggregate of 14,510,928 shares of common stock, including: (i) outstanding warrants to purchase 1,500,000 shares of the Company's common stock issued to investors participating in the Company's bridge financing completed in November 2011; (ii) outstanding warrants to purchase 11,653,678 shares of the Company's common stock issued to investors participating in the Company's private placement financings closed on February 8, 2012, February 29, 2012 and March 16, 2012; and (iii) outstanding warrants to purchase 1,357,250 shares of the Company's common stock issued to investors in the Company's private placement transactions completed in 2011.

Pursuant to Rule 12b-15 under the Securities and Exchange Act of 1934, as amended, this Amendment No. 2 amends and restates only the items of the Schedule TO that are being amended and restated hereby, and unaffected items and exhibits in the Schedule TO are not included herein. This Amendment No. 2 should be read in conjunction with the Schedule TO and the related Offering Materials, as the same may be further amended or supplemented hereafter and filed with the SEC.

Item 1. SUMMARY TERM SHEET

The information under the heading "Summary of Terms" in the Offer to Amend and Exercise filed as Exhibit (a)(1)(B) to this Amendment No. 2, as amended and supplemented, is incorporated herein by reference.

Item 2. SUBJECT COMPANY INFORMATION

Item 2(c) of the Schedule TO is hereby amended and supplemented as follows:

(c) There is no established trading market for the Original Warrants or the Amended Warrants offered pursuant to the Offer to Amend and Exercise. Information about the trading market and price of the Company's common stock under Section 12: "Trading Market and Price Range of Original Warrants, Amended Warrants and Common Stock" of the Offer to Amend and Exercise, as amended and supplemented, is incorporated herein by reference. Item 4. TERMS OF THE TRANSACTION

Item 4(a) of the Schedule TO is hereby amended and supplemented as follows:

(a) Information about the terms of the transaction under the headings "Summary of Terms" and "Description of Offer to Amend and Exercise" of the Offer to Amend and Exercise, as amended and supplemented by this Amendment No. 2, is incorporated herein by reference.

Item 10. FINANCIAL STATEMENTS.

Items 10(a) and 10(b) of the Schedule TO is hereby amended and supplemented as follows:

(a) The financial information required by Item 1010(a) is included under Section 16 "Historical and Pro-Forma Financial Information Regarding the Company" of the Offer to Amend and Exercise, as amended and supplemented, is incorporated by reference.

(b) The pro forma financial information required by Item 1010(b) is included under Section 16 "Historical and Pro-Forma Financial Information Regarding the Company" of the Offer to Amend and Exercise, as amended and supplemented, is incorporated by reference.

Item 12. EXHIBITS.

Item 12 Exhibits to the Schedule TO is amended and restated as follows:

The following are attached as exhibits to this Schedule TO:

(a)	(1)(A)	Letter to Holders of Original Warrants, as amended on December 4, 2012
	(1)(B)	Offer to Amend and Exercise, as amended on December 4, 2012
	(1)(C)	Form of Election to Participate and Exercise Warrant, as amended on December 4, 2012
	(1)(D)	Form of Notice of Withdrawal, as amended on December 4, 2012
	(1)(E)	Form of Bridge Amended Warrant, as amended on December 4, 2012
	(1)(F)	Form of Investor Amended Warrant, as amended on December 4, 2012
	(1)(G)	Form of Private Amended Warrant, as amended on December 4, 2012
	(1)(H)	Supplemental Company Information, dated December 4, 2012
	(1)(I)	Supplemental Letter to Holders of Original Warrants, dated December 4, 2012
	(5)(A)	Current Report on Form 8-K/A containing audited financial statements for the fiscal years ended December 31, 2011 and 2010 (as filed with the SEC on May 11, 2012 and incorporated herein by reference)*

(5)(B) Report on Form 10-Q for the quarter ended March 31, 2012 (as filed with the SEC on May 15, 2012 and incorporated herein by reference)*

(5)(C) Report on Form 10-Q for the quarter ended June 30, 2012 (as filed with the SEC on August 14, 2012 and incorporated herein by reference)*

(5)(D) Report on Form 10-Q for the quarter ended September 30, 2012 (as filed with the SEC on November 13, 2012 and incorporated herein by reference)*

(5)(E) Form of Bridge Warrant of Organovo Holdings, Inc. (incorporated by reference to Exhibit 4.1 to the Company' Current Report on Form 8-K, as filed with the SEC on February 13, 2012)*

(5)(F) Form of Investor Warrant of Organovo Holdings, Inc. (incorporated by reference to Exhibit 4.4 to the Company' Current Report on Form 8-K, as filed with the SEC on February 13, 2012)*

(5)(G) Form of Private Warrant of Organovo Holdings, Inc. (incorporated by reference to Exhibit 4.3 to the Company' Current Report on Form 8-K, as filed with the SEC on February 14, 2012)*

(5)(H) Registration Statement on Form S-1 (File No. 333-182101), which registers the resale of the shares of common stock underlying the Bridge and Investor Warrants (as declared effective and filed with the SEC on July 6, 2012 and incorporated herein by reference)*

(5)(I) Current Report on Form 8-K containing an investor presentation regarding the Company (as filed with the SEC on November 23, 2012 and incorporated herein by reference)*

* Previously filed.

SIGNATURE

After due inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

ORGANOVO HOLDINGS, INC.

By: /s/ Keith Murphy
Name: Keith Murphy
Title: Chief Executive Officer and President
(Principal Executive Officer)

Date: December 4, 2012

November 16, 2012 (as amended December 4, 2012)

ORGANOVO HOLDINGS, INC.

To the Holders of the Original Warrants

This letter is to inform you that Organovo Holdings, Inc. (the "**Company**") is offering holders of certain warrants to purchase common stock of the Company (defined below as the "Original Warrants") the opportunity to amend and exercise such Original Warrants, upon the terms set forth in the enclosed "Offer to Amend and Exercise Warrants to Purchase Common Stock of Organovo Holdings, Inc." dated as of December 4, 2012 (the "**Offer to Amend and Exercise**"). The warrants subject to the Offer to Amend and Exercise are those held by: (i) the investors who participated in the Company's bridge financing completed on November 2011 (the "**Bridge Warrants**"); (ii) the investors who participated the Company's private placement financings closed on February 8, 2012, February 29, 2012 and March 16, 2012 (the "**Investor Warrants**"); and (iii) outstanding warrants to purchase shares of the Company's common stock issued to investors in the Company's private placement transactions completed in 2011 (the "**Private Warrants**", and collectively with the Bridge Warrants and the Investor Warrants, the "**Original Warrants**"). All terms not defined in this letter shall have the meanings set forth in the Offer to Amend and Exercise.

The Offer to Amend and Exercise is an opportunity for the holders of the Original Warrants to amend and exercise the Original Warrants at a reduced warrant cash exercise price of $0.80 per share of Common Stock, subject to the terms and conditions set forth in the Offer to Amend and Exercise. The purposes of the Offer to Amend and Exercise are to help the Company reduce its outstanding warrant liability and to raise funds to support the Company's operations by encouraging the participating holders to exercise the Original Warrants by significantly reducing both the exercise price and the exercise period of the Original Warrants. The Company plans to use the funds obtained for working capital and other general corporate purposes.

The enclosed Offer to Amend and Exercise together with the Election to Participate and Exercise Warrant, forms of Amended Warrants and Notice of Withdrawal constitute the "**Offering Materials**." The Offering Materials provide information regarding the Offer to Amend and Exercise and instructions as to how you can participate and exercise your Original Warrants. You should read all of the materials carefully before you decide whether to amend and exercise any of your Original Warrants. Also, please note that although there is no minimum participation requirement with respect to this Offer to Amend and Exercise, you may not elect to amend but not exercise your Original Warrants. Participation in this Offer to Amend and Exercise requires both amendment of your Original Warrants and your exercise of the Amended Warrants, which will happen simultaneously should you choose to participate.

To participate in the Offer to Amend and Exercise and exercise an Amended Warrant and receive the number of shares of Company common stock issuable therefor, you must deliver to the Company, prior to the expiration of the Offer to Amend and Exercise, which is 5:00 p.m. (Pacific time) on December 17, 2012, as may be extended by the Company in its sole discretion (the "**Expiration Date**"): (i) a signed copy of the Election to Participate and Exercise Warrant, (ii) a signed copy of an Accredited Investor Questionnaire, (iii) the original copy of your Original Warrant (or an Affidavit of Lost Warrant) for cancellation, and (iv) cash in the amount equal to $0.80 per share multiplied by the number of shares of common stock you elect to purchase. The cash exercise price may be tendered in the form of a check payable to Organovo Holdings, Inc. or by wire transfer to the Company's account as set forth in the Election to Participate and Exercise Warrant. These items must be properly delivered, before the Expiration Date to: Organovo Holdings, Inc., 6275 Nancy Ridge Drive, San Diego, CA 92121, Attn: Corporate Secretary, telephone number (858) 550-9994. If you properly tender (and do not validly withdraw) these materials on or prior to 5:00 p.m., Pacific Time on December 17, 2012, the Expiration Date of the Offer to Amend and Exercise (or such later date and time if we extend the Offer to Amend and Exercise), promptly following the Expiration Date, we intend to notify our depositary institution and our transfer agent of our acceptance of your payment of the exercise price and these materials and issue and deliver to you the number of shares of Company common stock issuable under the Amended Warrant.

If you change your mind and do not want to participate in the Offer to Amend and Exercise, you may submit a Notice of Withdrawal to us. However, to be effective, the Notice of Withdrawal must be properly completed and must be returned to us on or prior to 5:00 p.m., Pacific Time on December 17, 2012, the Expiration Date of the Offer to Amend and Exercise (or such later date and time if we extend the Offer to Amend and Exercise). However, if we have not accepted your tendered Original Warrants and other Acceptance and Exercise Documents by January 16, 2013, which is the fortieth business day from the commencement of the Offer to Amend and Exercise, you may change your mind and submit a Notice of Withdrawal to us after January 16, 2013. If you properly withdraw in a timely manner as set forth above, we will promptly: (i) cancel your signed copy of the Election to Participate and Exercise Warrant, (ii) return the original copy of your Original Warrant (which will remain unmodified and in full force and effect), or issue you a new Original Warrant if you submitted an Affidavit of Lost Warrant, and (iii) provide you with a check equal to the amount of cash you paid to exercise the Amended Warrant.

Thank you for your time in reviewing this request.

Very truly yours,

/s/ Keith Murphy

Organovo Holdings, Inc.
Keith Murphy
Chief Executive Officer and President

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THE TRANSACTION CONTEMPLATED HEREIN; PASSED UPON THE MERITS OR FAIRNESS OF THE TRANSACTION; OR PASSED UPON THE ADEQUACY OR ACCURACY OF THE DISCLOSURE IN THIS DOCUMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

OFFER TO AMEND AND EXERCISE
WARRANTS TO PURCHASE COMMON STOCK

ORGANOVO HOLDINGS, INC.

NOVEMBER 16, 2012 (as amended December 4, 2012)

THE OFFER TO AMEND AND EXERCISE (AND ASSOCIATED WITHDRAWAL RIGHTS) WILL EXPIRE AT 5:00 P.M. (Pacific time) ON DECEMBER 17, 2012 UNLESS THIS OFFER PERIOD IS EXTENDED.

Organovo Holdings, Inc., a Delaware corporation, is referred to in this Offer to Amend and Exercise as "we," "us," "Organovo" or the "Company," and eligible holders of outstanding warrants are referred to as "you."

The Company is offering to amend, upon the terms and subject to the conditions set forth herein, warrants to purchase an aggregate of 14,510,928 shares of common stock (the "**Offer to Amend and Exercise**"), including: (i) outstanding warrants to purchase 1,500,000 shares of the Company's common stock issued to investors participating in the Company's bridge financing completed in November 2011 (the "**Bridge Warrants**"); (ii) outstanding warrants to purchase 11,653,678 shares of the Company's common stock issued to investors participating in the Company's private placement financings closed on February 8, 2012, February 29, 2012 and March 16, 2012 (the "**Investor Warrants**"); and (iii) outstanding warrants to purchase 1,357,250 shares of the Company's common stock issued to investors in the Company's private placement transactions completed in 2011 (the "**Private Warrants**" and collectively with the Bridge Warrants and the Investor Warrants, the "**Original Warrants**"). There is no minimum participation requirement with respect to this Offer to Amend and Exercise.

Pursuant to the Offer to Amend and Exercise, the Original Warrants will be amended (the "**Amended Warrants")** to: (i) reduce the exercise price of the Original Warrants from $1.00 per share to $0.80 per share of common stock in cash, (ii) shorten the exercise period of the Original Warrants so that they expire concurrently with the expiration of the Offer to Amend and Exercise at 5:00 p.m. (Pacific Time) on December 17, 2012, as may be extended by the Company in its sole discretion ("**Expiration Date**"), (iii) delete the price-based anti-dilution provisions contained in the Original Warrants, (iv) restrict the ability of the holder of shares issuable upon exercise of the Amended Warrants to sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any of such shares without the prior written consent of the Company for a period of twenty (20) days after the Expiration Date (the "**Lock-Up Period**"); and (v) provide that a holder, acting alone or with others, will agree not to effect any purchases or sales of any securities of the Company in any "short sales" as defined in Rule 200 promulgated under Regulation SHO under the Exchange Act, or any type of direct and indirect stock pledges, forward sale contracts, options, puts, calls, short sales, swaps, "put equivalent positions" (as defined in Rule 16a-1(h) under the Exchange Act) or similar arrangements, or sales or other transactions through non-U.S. broker dealers or foreign regulated brokers through the expiration of the Lock-Up Period. Other than set forth above, the terms of the Original Warrants will remain unmodified and in full force and effect.

Holders may elect to amend some or all of their Original Warrants. If you choose not to participate in the Offer to Amend and Exercise, your Original Warrants will remain in full force and effect, as originally issued.

The purpose of the Offer to Amend and Exercise is to encourage the amendment and exercise of the Original Warrants to help the Company reduce its outstanding warrant liability and to raise funds to support the Company's operations by providing the holders of the Original Warrants with the opportunity to obtain and exercise an Amended Warrant by significantly reducing the exercise price of the Original Warrants. Please see Section 2 below for a description of the purposes of the Offer to Amend and Exercise.

The period during which Original Warrants may be amended and exercised on the terms described above will commence on November 16, 2012 (the date the materials relating to the Offer to Amend and Exercise are first sent to the holders, referred to herein as the "**Offer Date**") through the Expiration Date (the "**Offer Period**").

The Company will agree to amend all Original Warrants held by eligible holders, upon the terms and subject to the conditions of the Offer to Amend and Exercise and the attached Election to Participate and Exercise Warrant. ***IT IS THE COMPANY'S CURRENT INTENTION NOT TO CONDUCT ANOTHER OFFER DESIGNED TO INDUCE THE EARLY EXERCISE OF THE ORIGINAL WARRANTS.***

IMPORTANT PROCEDURES

This Offer to Amend and Exercise together with the Election to Participate and Exercise Warrant, Notice of Withdrawal, and Forms of Amended Warrants constitute the "**Offering Materials**." These Offering Materials provide information regarding the Offer to Amend and Exercise and instructions as to how you can amend and exercise your Original Warrants. An election to participate in the Offer to Amend and Exercise will result in both the amendment of your Original Warrant(s) and your exercise of the Amended Warrant(s). You should read all of the materials carefully before you decide whether to participate in the Offer to Amend and Exercise and exercise an Amended Warrant and receive the number of shares of Company common stock issuable therefor.

To participate in the Offer to Amend and Exercise and exercise an Amended Warrant and receive the number of shares of Company common stock issuable therefor, you must deliver to the Company before the Expiration Date all of the following: (i) a signed copy of the Election to Participate and Exercise Warrant, (ii) a signed copy of an Accredited Investor Questionnaire, (iii) the original copy of your Original Warrant (or an Affidavit of Lost Warrant) for cancellation, and (iv) cash in the amount equal to $0.80 per share multiplied by the number of shares of common stock the holder elects to purchase (collectively, the "**Acceptance and Exercise Documents**"). The cash may be tendered in the form of a check payable to Organovo Holdings, Inc. or by wire transfer to the Company's account as set forth in the Election to Participate and Exercise Warrant. Each of these items must be properly delivered, before the Expiration Date to: Organovo Holdings, Inc., 6275 Nancy Ridge Drive, San Diego, CA 92121, Attn: Corporate Secretary, telephone number (858) 550-9994. If you properly tender (and do not validly withdraw) your Original Warrants and the other Acceptance and Exercise Documents on or prior to 5:00 p.m., Pacific Time on December 17, 2012, the Expiration Date of the Offer to Amend and Exercise (or such later date and time if we extend the Offer to Amend and Exercise), promptly following the Expiration Date, we intend to notify our depositary institution and our transfer agent of our acceptance of your payment of the exercise price and your other Acceptance and Exercise Documents and issue and deliver to you the number of shares of Company common stock issuable under the Amended Warrant . See Section 8 "Procedure for Participating in Offer to Amend and Exercise and Exercising Amended Warrants" below.

If you change your mind and do not want to participate in the Offer to Amend and Exercise, you may submit a Notice of Withdrawal to the Company at any time prior to the Expiration Date. The Notice of Withdrawal must be properly completed and must be returned to the Company on or prior to the Expiration Date. However, you may change your mind and submit a Notice of Withdrawal to us after January 16, 2013, if your Original Warrants and other Acceptance and Exercise Documents have not been accepted by us prior to January 16, 2013. If you properly withdraw in a timely manner as set forth above, we will promptly: (i) cancel your signed copy of the Election to Participate and Exercise Warrant, (ii) return the original copy of your Original Warrant (which will remain unmodified and in full force and effect), or issue you a new Original Warrant if you submitted an Affidavit of Lost Warrant, and (iii) provide you with a check equal to the amount of cash you paid to exercise the Amended Warrant.

If you have any question or need assistance, you should contact Aegis Capital Corp., the Warrant Agent (the "**Warrant Agent**"), for the Offer to Amend and Exercise. Aegis Capital may be reached at:

810 7th Avenue, 18th Floor
New York, NY 10019
Attention: Adam K. Stern
Head of Private Equity Banking
(646) 502-2401

You may request additional copies of this document and any of the Offering Materials from the Company. The Company may be reached at:

6275 Nancy Ridge Drive
San Diego, California 92121
Attention: Corporate Secretary
(858) 550-9994

OUR BOARD OF DIRECTORS MAKES NO RECOMMENDATION AS TO WHETHER OR NOT YOU SHOULD PARTICIPATE IN THE OFFER TO AMEND AND EXERCISE. YOU MUST MAKE YOUR OWN DECISION WITH RESPECT TO THE OFFER TO AMEND AND EXERCISE. FOR QUESTIONS REGARDING TAX IMPLICATIONS OR OTHER INVESTMENT-RELATED QUESTIONS, YOU SHOULD TALK TO YOUR OWN ATTORNEY, ACCOUNTANT AND/OR FINANCIAL PLANNER.

WE HAVE NOT AUTHORIZED ANY PERSON TO MAKE ANY RECOMMENDATION ON OUR BEHALF AS TO WHETHER OR NOT YOU SHOULD PARTICIPATE IN THE OFFER TO AMEND AND EXERCISE. YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED OR INCORPORATED BY REFERENCE IN THIS DOCUMENT.

THIS OFFER TO AMEND AND EXERCISE HAS BEEN PREPARED SOLELY FOR THE BENEFIT OF HOLDERS OF ORIGINAL WARRANTS. DISTRIBUTION OF THIS OFFER TO AMEND AND EXERCISE TO ANY PERSON OTHER THAN SUCH HOLDERS AND THOSE PERSONS RETAINED TO ADVISE SUCH HOLDERS IS UNAUTHORIZED AND ANY REPRODUCTION OF THIS OFFER TO AMEND AND EXERCISE OR RELATED DOCUMENTS, IN WHOLE OR IN PART, IS PROHIBITED.

THE SECURITIES BEING OFFERED PURSUANT TO THIS OFFER TO AMEND AND EXERCISE ARE BEING OFFERED PURSUANT TO EXEMPTIONS PROVIDED BY SECTION 4(2) OF THE SECURITIES ACT OF 1933, AS AMENDED, REGULATION D THEREUNDER, CERTAIN STATE SECURITIES LAWS AND CERTAIN RULES AND REGULATIONS PROMULGATED THEREUNDER.

THE DATE OF THIS OFFER TO AMEND AND EXERCISE IS DECEMBER 4, 2012

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SUMMARY OF TERMS

Company:	Organovo Holdings, Inc., a Delaware corporation, with principal executive offices at 6275 Nancy Ridge Drive, San Diego, California 92121.
Eligible Original Warrants:	The following Original Warrants are subject to the Offer to Amend and Exercise: **Bridge Warrants:** Outstanding warrants to purchase 1,500,000 shares of the Company's common stock issued to investors participating in the Company's bridge financing completed in November 2011; **Investor Warrants:** Outstanding warrants to purchase 11,653,678 shares of the Company's common stock issued to investors participating in the Company's private placement financings closed on February 8, 2012, February 29, 2012 and March 16, 2012; and **Private Warrants:** Outstanding warrants to purchase 1,357,250 shares of the Company's common stock issued to investors in the Company's private placement transactions completed in 2011.
Expiration Date:	5:00 p.m., Pacific Time on December 17, 2012, as may be extended by the Company in its sole discretion.
Terms of Amended Warrants:	Pursuant to the Offer to Amend and Exercise, the Original Warrants will be amended as described below: **New Exercise Price:** The exercise price of the Original Warrants will be reduced from $1.00 per share to $0.80 per share. **New Termination Date:** The termination date of the Original Warrants is being shortened to run concurrently with the Expiration Date. **Lock-Up Period:** The Amended Warrants will contain a lock-up provision that provides that the holder will not sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any of the shares issuable upon exercise of the Amended Warrants without the prior written consent of the Company for twenty (20) days after the Expiration Date (the "**Lock-Up Period**"). In addition, the Company may impose stop-transfer restrictions to enforce these restrictions. **No Cashless Exercise:** The Amended Warrants must be exercised for cash, and any cashless exercise provisions in the Original Warrants will be inapplicable to the Amended Warrants. The shares of common stock issuable upon the exercise of the Amended Warrants will be issued to the holder promptly after the holder's exercise of the Amended Warrants.

	Anti-Dilution: The price-based anti-dilution provisions contained in the Bridge Warrants and Investor Warrants will be deleted and will have no application to the issuance (or deemed issuance) or exercise of the Amended Warrants. **Market Restrictions:** A holder, acting alone or with others, will agree not to effect any purchases or sales of any securities of the Company in any "short sales" as defined in Rule 200 promulgated under Regulation SHO under the Exchange Act, or any type of direct and indirect stock pledges, forward sale contracts, options, puts, calls, short sales, swaps, "put equivalent positions" (as defined in Rule 16a-1(h) under the Exchange Act) or similar arrangements, or sales or other transactions through non-U.S. broker dealers or foreign regulated brokers through the expiration of the Lock-Up Period. **Other Terms:** Except as set forth above all other terms of the Amended Warrants will be the same as the terms of the Original Warrants. See the forms of Amended Warrants attached hereto as Exhibits (a)(1)(E), (a)(1)(F) and (a)(1)(G) to the Schedule TO.
Partial Participation Permitted:	If Original Warrant holders choose to participate in the Offer to Amend and Exercise, they may amend and exercise any or all of such holder's Original Warrants pursuant to the terms of the Offer to Amend and Exercise. The Company will issue a new Original Warrant exercisable for that number of shares of common stock that a holder elects to exclude from the Offer to Amend and Exercise.
Transfers:	The terms of the Original Warrants provide that a holder may transfer the Original Warrants to a third party if the transfer qualifies for an exemption from the registration requirements of the Securities Act of 1933, as amended, to the reasonable satisfaction of the Company. Any holder of an Original Warrant who desires to transfer an Original Warrant should contact the Company prior to such transfer to ensure that the planned transfer satisfies the transfer restrictions set forth in the Original Warrants.
Conditions:	The Offer to Amend and Exercise is subject to certain conditions, as described herein: (i) As part of the Election to Participate and Exercise Warrant, the holders of the Original Warrants must complete an Accredited Investor Questionnaire. The holders of the Original Warrants previously represented to the Company that they were "accredited investors" in connection with the transactions in which such holders acquired the Original Warrants. The Company has included with this Offer to Amend and Exercise an exhibit titled "Supplemental Company Information" that contains additional information that holders of Original Warrants who are no longer "accredited investors," if any, should consider before making an investment decision.

	However, the Company will not accept any Election to Participate and Exercise Warrant from or on behalf of, any Original Warrant holders if the Company determines that a valid securities exemption is not available under the Securities Act. (ii) In addition, we are not making this Offer to Amend and Exercise to, nor will we accept any Election to Participate and Exercise Warrant from or on behalf of, Original Warrant holders in any jurisdiction in which the Offer to Amend and Exercise or the exercise of the Amended Warrants would not be in compliance with the laws of such jurisdiction. You may not elect to amend but not exercise your Original Warrants. Participation in this Offer to Amend and Exercise requires both amendment of your Original Warrants and your exercise of the Amended Warrants, which will happen simultaneously should you choose to participate. Original Warrants of holders that elect not to participate and exercise will remain outstanding pursuant to their original terms.
Future Amendments to the Offer to Amend and Exercise:	If we materially change the terms of the Offer to Amend and Exercise we will extend the Expiration Date to the extent required under the rules of the Securities Exchange Act of 1934, as amended (the "Exchange Act").
How to Participate in the Offer to Amend and Exercise:	To participate in the Offer to Amend and Exercise and exercise an Amended Warrant and receive the number of shares of Company common stock issuable therefor, you must deliver to the Company before the Expiration Date all of the Acceptance and Exercise Documents. The cash exercise price may be tendered in the form of a check payable to Organovo Holdings, Inc. or by wire transfer to the Company's account as set forth in the Election to Participate and Exercise Warrant. All of the Acceptance and Exercise Documents must be properly delivered, before the Expiration Date to: Organovo Holdings, Inc., 6275 Nancy Ridge Drive, San Diego, CA 92121, Attn: Corporate Secretary, telephone number (858) 550-9994.
Manner of Acceptance of Payment:	If you properly tender (and do not validly withdraw) your Original Warrants and the other Acceptance and Exercise Documents on or prior to 5:00 p.m., Pacific Time on December 17, 2012, the Expiration Date of the Offer to Amend and Exercise (or such later date and time if we extend the Offer to Amend and Exercise), promptly following the Expiration Date, we intend to notify our depositary institution and our transfer agent of our acceptance of your payment of the exercise price and your other Acceptance and Exercise Documents and issue and deliver to you the number of shares of Company common stock issuable under the Amended Warrant . See Section 8 "Procedure for Participating in Offer to Amend and Exercise and Exercising Amended Warrants" below.

Withdrawal Rights:	If you change your mind and do not want to participate in the Offer to Amend and Exercise, you may submit the Notice of Withdrawal to us. However, to be effective, the Notice of Withdrawal must be properly completed and must be returned prior to 5:00 p.m., Pacific Time on December 17, 2012, the Expiration Date of the Offer to Amend and Exercise (or such later date and time if we extend the Offer to Amend and Exercise), to: Organovo Holdings, Inc., 6275 Nancy Ridge Drive, San Diego, CA 92121, Attn: Corporate Secretary, telephone number (858) 550-9994. Following the Expiration Date, you cannot withdraw your Election to Participate and Exercise Warrant. However, if we have not accepted your tendered Original Warrants and other Acceptance and Exercise Documents by January 16, 2013, which is the fortieth business day from the commencement of the Offer to Amend and Exercise, you may change your mind and submit a Notice of Withdrawal to us after January 16, 2013. If you properly withdraw in a timely manner as set forth above, we will promptly: (i) cancel your signed copy of the Election to Participate and Exercise Warrant, (ii) return the original copy of your Original Warrant (which will remain unmodified and in full force and effect), or issue you a new Original Warrant if you submitted an Affidavit of Lost Warrant, and (iii) provide you with a check equal to the amount of cash you paid to exercise the Amended Warrant.
Purposes of the Offer to Amend and Exercise and Use of Proceeds:	The purposes of this Offer to Amend and Exercise are as follows: **Reduction of Warrant Liability:** The Offer to Amend and Exercise can help the Company reduce the warrant liability recorded by the Company on its financial statements. The warrant liability serves as an impediment to certain goals of the Company, as significant warrant liability on the Company's balance sheet may make it more difficult for the Company to list its shares of common stock on a national securities exchange. The Bridge Warrants and Investor Warrants contain price-based anti-dilution provisions that provide the holders with protection against future down-round financings. Based on these anti-dilution provisions, the Company is required to record a derivative liability on its balance sheet each fiscal quarter for these Bridge Warrants and Investor Warrants based on the fair value of the Bridge Warrants and Investor Warrants as of the end of such fiscal quarter. The Company's obligation to continue to record a derivative liability each quarter for a particular Bridge Warrant or Investor Warrant ends when the Bridge Warrant or Investor Warrant is exercised or expires. Various factors are considered in the pricing models the Company used to value the Bridge Warrants and Investor Warrants, including the Company's current stock price, the remaining life of the Bridge Warrants and Investor Warrants, the volatility of the Company's stock price, and the risk free interest rate. As a result of the changes in these factors, the warrant liability recorded by the Company was approximately $47.5 Million, $80.6 Million and $35.5 Million for the fiscal quarters ended March 31, June 30 and

	September 30, 2012, respectively. Future changes in these factors will continue to have a significant impact on the computed fair value of the derivative liability for these Bridge Warrants and Investor Warrants. As such, the Company expects future changes in the fair value of the Bridge Warrants and Investor Warrants to continue to vary significantly from quarter to quarter. The Company believes these significant variations make it more difficult for investors to evaluate the Company's business and operations. **Fund Raising:** An additional purpose of the Offer to Amend and Exercise is to raise funds to support the Company's future operations and capital requirements by encouraging the participating holders to exercise their Original Warrants by significantly reducing the exercise price and shortening the exercise period. The funds obtained will be used by the Company as working capital and for other general corporate purposes.
Registration of Warrant Shares:	The Original Warrants, the Amended Warrants and the shares of common stock issuable upon exercise of the Original or Amended Warrants are "restricted securities" and may not be sold by the holder absent a registration statement covering the resale of the shares or an exemption from the registration requirement. There is no established trading market for the Original Warrants or the Amended Warrants, and we do not intend to list the Original Warrants or the Amended Warrants for trading on any exchange or market. We have previously filed a Registration Statement on Form S-1 (File No. 333-182101) (the **"Registration Statement"**) to register the resale of the shares of common stock underlying the Original Warrants under the Securities Act. Promptly following the Expiration Date, we intend to file a prospectus supplement to the prospectus included in the Registration Statement to reflect the substantive changes from the information currently set forth in such prospectus as a result of the Offer to Amend and Exercise Thereafter, the holders of shares of common stock issuable upon exercise of the Amended Warrants who are listed as selling stockholders in the Registration Statement may sell their shares of common stock in accordance with the resale restrictions set forth in the "Plan of Distribution" section of the Prospectus in the Registration Statement. Each holder of Original Warrants should read the applicable Prospectus carefully before deciding whether to participate in the Offer to Amend and Exercise. In addition, any holder (including any transferees or acquirers) of an Original Warrant or Amended Warrant who is not listed as a selling stockholder in the Prospectus cannot resell such holder's shares in reliance on the Prospectus, unless and until the Company files a post-effective amendment to the Registration Statement to include such holder as a selling stockholder. Absent the filing of the post-effective amendment to the Registration Statement, the holder (including any transferees or acquirers) will be required to qualify for an exemption from the registration requirements, which may require a holding period of at least six months.

Taxes:	We recommend that you consult with your own tax advisor with regard to the possibility of any federal, state, local or other tax consequences of the Offer to Amend and Exercise. See Section 19 "Material U.S. Federal Income Tax Consequences" below for a discussion of the material U.S. Federal Income Tax Consequences of participating in the Offer to Amend and Exercise.
Accounting Treatment:	Under U.S. generally accepted accounting principles ("**GAAP**"), the anti-dilution provisions in the Original Warrants causes the Original Warrants to be treated as a derivative liability. As a result, we must record the Original Warrants at their fair value on each balance sheet date and any change in value between reporting periods must be recorded as other income or expense, as the case may be, for the period ending on such reporting date. The fair value of the derivative liabilities associated with the Original Warrants increases as the price of our common stock increases, resulting in other expense in our consolidated statements of operations, and decreases as the price of our common stock decreases, resulting in other income. **In other words, the existence of the anti-dilution provision causes our reported net income to *decrease* when the price of our common stock *increases*, and vice versa.** If the Original Warrants are amended and exercised pursuant to the Offer to Amend and Exercise, this effect on our derivate liability will no longer occur for future periods for these warrants. In addition, the exercise price paid for the warrants would be reclassified from liabilities to stockholders' equity, which would result in a decrease to the derivative liability account included in our balance sheet and an increase in stockholders' equity.
Fees and Expenses:	The Company has retained Aegis Capital to act as its Warrant Agent for the Offer to Amend and Exercise pursuant to a Warrant Agent Agreement, attached as Exhibit (d)(1) to its Schedule TO. Aegis Capital, in accordance with the terms of the Warrant Agent Agreement, shall use reasonable commercial efforts to contact holders of the Original Warrants by mail, telephone, facsimile, or other electronic means and solicit their participation in the Offer to Amend and Exercise. Aegis Capital will receive a fee equal to 2% of the cash exercise prices paid by holders of the Original Warrants who participate in the Offer to Amend and Exercise. In addition, the Company has agreed to reimburse Aegis Capital for its reasonable out-of-pocket expenses and attorney's fees, including a $35,000 non-accountable expense allowance. If such expenses and fees exceed $35,000, Aegis Capital must thereafter provide invoices to the Company prior to seeking reimbursement and must obtain the Company's prior approval for any individual expenses in excess of $2,500. The Company has agreed to indemnify Aegis Capital against certain liabilities in connection with the Offer to Amend and Exercise, including certain liabilities under the federal securities laws.

Interests of Directors and Executive Officers:	Two of our executive officers and one of our directors hold Original Warrants and may participate in the Offer to Amend and Exercise on the same terms and conditions as the other holders of the Original Warrants. Please see Section 17 "Interests of Directors and Officers in the Offer to Amend and Exercise" below.
Historical and Pro Forma Financial Information	The Company has included its financial statements for the fiscal years ended December 31, 2011 and 2010 and for the quarterly period ended September 30, 2012 in this Offer to Amend and Exercise. The Company has also included pro forma information reflecting the effect of the Offer to Amend and Exercise in this Offer to Amend and Exercise.
Additional Information:	The Company has filed with the SEC a Tender Offer Statement on Schedule TO of which this Offer to Amend and Exercise is a part. This Offer to Amend and Exercise does not contain all of the information contained in the Schedule TO and the exhibits to the Schedule TO. We recommend that holders of the Original Warrants review the Schedule TO, including the exhibits, and the Company's other materials that have been filed with the SEC before making a decision on whether to participate in the Offer to Amend and Exercise. The Board of Directors of the Company recognizes that the decision to participate in the Offer to Amend and Exercise is an individual one that should be based on a variety of factors. The holders of the Original Warrants should consult with their respective professional advisors if they have questions about their financial or tax situation. The information about this Offer to Amend and Exercise from the Company is limited to the Offering Materials. The Company issued the Original Warrants in private placement transactions in reliance on the exemption from registration provided by Rule 506 of Regulation D under the Securities Act of 1933, as amended (the "**Securities Act**"). In connection with such transactions, the holders of the Original Warrants represented that they were "accredited investors." The Company has included with this Offer to Amend and Exercise an exhibit titled "Supplemental Company Information" that contains additional information that holders of Original Warrants, if any, who are no longer "accredited investors" should consider before making an investment decision. The Company is subject to the information requirements of the Securities Exchange Act of 1934, as amended, and in accordance therewith files and furnishes reports and other information with the SEC. All reports and other documents the Company has filed with the SEC, including the Schedule TO relating to the Offer to Amend and Exercise, or will file with the SEC in the future, can be accessed electronically on the SEC's website at www.sec.gov.

Information Requests:	Please direct questions or requests for assistance regarding this Offer to Amend and Exercise, Election to Participate and Exercise Warrant, and Notice of Withdrawal or other materials, in writing, to the Warrant Agent — Aegis Capital Corp., 810 7th Avenue, 18th Floor, New York, NY 10019; Attn: Adam K. Stern, Head of Private Equity Banking (646) 502-2401. Please direct requests for additional copies of this Offer to Amend and Exercise, Election to Participate and Exercise Warrant, and Notice of Withdrawal or other materials, in writing, to the Company — Organovo Holdings, Inc., 6275 Nancy Ridge Dr., San Diego, California 92121; Attn: Corporate Secretary, telephone (858) 550-9994.

ABOUT THIS OFFER TO AMEND AND EXERCISE

YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED OR INCORPORATED BY REFERENCE IN THIS OFFER TO AMEND AND EXERCISE. WE HAVE NOT AUTHORIZED ANYONE TO PROVIDE INFORMATION DIFFERENT FROM THAT CONTAINED OR INCORPORATED BY REFERENCE IN THIS OFFER TO AMEND AND EXERCISE AND, IF PROVIDED, SUCH INFORMATION MUST NOT BE RELIED UPON.

ALTHOUGH OUR BOARD OF DIRECTORS HAS APPROVED THE OFFER TO AMEND AND EXERCISE, NEITHER THE COMPANY, ITS DIRECTORS, OFFICERS, ADVISORS OR AGENTS, INCLUDING THE WARRANT AGENT, MAKES ANY RECOMMENDATION AS TO WHETHER YOU SHOULD ACCEPT THE OFFER TO AMEND AND EXERCISE. YOU SHOULD NOT CONSIDER THE BOARD'S APPROVAL TO BE A RECOMMENDATION AS TO WHETHER YOU SHOULD PARTICIPATE IN THE OFFER TO AMEND AND EXERCISE WARRANTS. YOU MUST MAKE YOUR OWN DECISION WHETHER TO ACCEPT THE OFFER TO AMEND AND EXERCISE.

RISK FACTORS

Investment in our common stock involves a substantial degree of risk and should be regarded as speculative. As a result, the purchase of our common stock should be considered only by persons who can reasonably afford to lose their entire investment. Before you elect to participate in the Offer to Amend and Exercise, you should carefully consider the risk and uncertainties described below in addition to the other information in this Offer to Amend and Exercise and other information incorporated herein by reference. Additional risks and uncertainties of which we are unaware or which we currently believe are immaterial could also materially adversely affect our business, financial condition or results of operations. In any case, the trading price of our common stock could decline, and you could lose all or part of your investment.

Risks related to our Business and our Industry

We have a limited operating history and a history of operating losses, and expect to incur significant additional operating losses.

We were incorporated in 2007, opened our laboratories in San Diego, California in January, 2009 and have only a limited operating history. Therefore, there is limited historical financial information upon which to base an evaluation of our performance. Our prospects must be considered in light of the uncertainties, risks, expenses, and difficulties frequently encountered by companies in their early stages of operations. We have generated operating losses since we began operations, including $1,338,694, $3,964,610 and $6,396,501 for the year ended December 31, 2010 and 2011 and the nine months ended September 30, 2012, respectively, and as of September 30, 2012, we had an accumulated deficit of $40.7 Million. We expect to incur substantial additional operating expenses over the next several years as our research, development, and commercial activities increase. The amount of future losses and when, if ever, we will achieve profitability are uncertain. Our ability to generate revenue and achieve profitability will depend on, among other things, entering into customer relationships with strategic partners, successful completion of the preclinical and clinical development of our partners' product candidates; obtaining necessary regulatory approvals by our partners or us from the FDA and international regulatory agencies; successful manufacturing, sales, and marketing arrangements; and raising sufficient funds to finance our activities. We might not succeed at any of these undertakings. If we are unsuccessful at some or all of these undertakings, our business, prospects, and results of operations may be materially adversely affected.

We will need to secure additional financing to support our planned operations.

We will require additional funds for our anticipated operations and if we are not successful in securing additional financing, we may be required to delay significantly, reduce the scope of or eliminate one or more of our research or development programs, downsize our general and administrative infrastructure, or seek alternative measures to avoid insolvency, including arrangements with collaborative partners or others that may require us to relinquish rights to certain of our technologies, product candidates or products.

We are an early-stage company with an unproven business strategy and may never achieve commercialization of our research tools and therapeutic products or profitability.

Our strategy of using our research tools for the collaborative development of therapeutic products is unproven. Our success will depend upon our ability to enter into additional collaboration agreements on favorable terms, to determine which research tools and therapeutic products have potential value, and to select an appropriate commercialization strategy for each research tool and potential therapeutic product we or our collaborators choose to pursue. If we are not successful in implementing our strategy to commercialize our research tools and potential therapeutic products, we may never achieve, maintain or increase profitability.

Our success and our collaborators' ability to sell therapeutic products will depend to a large extent upon reimbursement from health care insurance companies.

Our success may depend, in part, on the extent to which reimbursement for the costs of therapeutic products and related treatments will be available from third-party payers such as government health administration authorities, private health insurers, managed care programs, and other organizations. Over the past decade, the cost of health care has risen significantly, and there have been numerous proposals by legislators, regulators, and third-party health care payers to curb these costs. Some of these proposals have involved limitations on the amount of reimbursement for certain products. Similar federal or state health care legislation may be adopted in the future and any products that we or our collaborators seek to commercialize may not be considered cost-effective. Adequate third-party insurance coverage may not be available for us or our collaborative partners to establish and maintain price levels that are sufficient for realization of an appropriate return on investment in product development.

Our research tools are new and unproven and may not allow us or our collaborators to develop successful commercial products

Our research tools involve new and unproven approaches. We have not proven that our research tools will enable us or our collaborators to identify therapeutic products with commercial potential, or to develop or commercialize such therapeutic products. Even if we or our collaborators are successful in identifying therapeutic products based on discoveries made using our research tools, we or our collaborators may not be able to discover or develop commercially viable products. To date, no one has developed or commercialized any therapeutic or other life science product based on our research tools. If our research tools do not assist in the discovery and development of such therapeutic products, our current and potential collaborators may lose confidence in us and our research tools and our business may suffer as a result.

If our collaborators, licensees and customers do not successfully develop or commercialize therapeutic or other life science products using our research tools, we may not generate revenues from those customers. In addition, we may experience unforeseen technical complications, unrecognized defects and limitations in the productions of our research tools. These complications could materially delay or limit the use of those tools, substantially increase the anticipated cost of manufacturing them or prevent us from implementing research projects at high efficiency levels.

Our products and services are subject to the risks associated with new and rapidly evolving technologies.

Our proprietary tissue creation technology, drug discovery and research tools are subject to the risks associated with new, rapidly evolving technologies. In addition, the process of developing new technologies and products is complex, and if we are unable to develop enhancements to, and new features for, our existing products or acceptable new products that keep pace with technological developments or industry standards, our products may become obsolete, less marketable and less competitive.

The commercialization of therapeutic or other life science products developed using our research tools is subject to a variety of risks.

Development of therapeutic and other life science products based on our or our collaborators' use of our technologies will be subject to risks of failure inherent in their development or commercial viability. These risks include the possibility that any such products will:

- fail to be found through the use of research tools;
- be found to be toxic;
- be found to be ineffective;
- fail to receive necessary regulatory approvals;

- be difficult or impossible to manufacture on a large scale;
- be economically infeasible to market;
- fail to be developed prior to the successful marketing of similar products by competitors; or
- be impossible to market because they infringe the proprietary rights of third parties or compete with superior products marketed by third parties.

We expect that our drug discovery collaborative partners or other clients that utilize our research tools will be required to submit their research for regulatory review in order to proceed with human testing of drug candidates. This review by the FDA and other regulatory agencies may result in timeline setbacks or complete rejection of an application to begin human studies, such as an Investigative New Drug (IND) application. Should our collaborative partners or other clients face such setbacks, we would be at risk of not being paid if there were agreed upon milestone and royalty payments. The risks of non-approval for our partners or other clients will include the inherent risks of unfavorable regulator opinion of a drug candidate's safety or efficacy, as well as the risk that the data generated by our platform technology is not found to be suitable to support the safety or efficacy of the drug. In addition, our platform technology is subject to the requirements of Good Laboratory Practice (GLP) to provide suitable data for INDs and other regulatory filings; no regulatory review of data from this platform has yet been conducted and there is no guarantee that our technology will be acceptable under GLP.

If we are unable to enter into or maintain strategic collaborations with third parties, we may have difficulty selling our research tools and therapeutic products and we may not generate sufficient revenue to achieve or maintain profitability.

Since we do not currently possess the resources necessary to develop, obtain approvals for or commercialize potential therapeutic products based on our technology, we must enter into collaborative arrangements to develop and commercialize these products. If we are not able to enter into these arrangements or implement our strategy to develop and commercialize therapeutic and other life science products based upon our research tools, we may not generate sufficient revenues to achieve or maintain profitability. Additionally, we may not be able to negotiate future collaborative arrangements on acceptable terms, if at all.

We cannot control our collaborators' allocation of resources or the amount of time that our collaborators devote to developing our programs or potential products, which may have a material adverse effect on our business.

We have collaborative research agreements with Pfizer and Unither, and will seek to enter into additional collaborations. Our agreements with our collaborators typically allow them significant discretion in electing whether to pursue product development, regulatory approval, manufacturing and marketing of the products they may develop with the help of our technology. We cannot control the amount and timing of resources our collaborators may devote to our programs or potential products. As a result, we cannot be certain that our collaborators will choose to develop and commercialize these products or that we will realize any milestone payments, royalties and other payments to which we may become entitled. In addition, if a partner is involved in a business combination, such as a merger or acquisition, or if a partner changes its business focus, its performance pursuant to its agreement with us may suffer and, as a result, we may not generate any revenues from royalty, milestone and similar provisions that may be included in our collaborative agreement with that partner.

Any termination or breach by or conflict with our collaborators or licensees could harm our business.

If we or any of our collaborators or licensees fail to renew or terminate any of our collaboration or license agreements or if either party fails to satisfy its obligations under any of our collaboration or license agreements or complete them in a timely manner, we could lose significant sources of revenue, which could result in volatility in our future revenue.

In addition, our agreements with our collaborators and licensees may have provisions that give rise to disputes regarding the rights and obligations of the parties. These and other possible disagreements could lead to termination of the agreement or delays in collaborative research, development, supply or commercialization of certain products, or could require or result in litigation or arbitration. Moreover, disagreements could arise with our collaborators over rights to our intellectual property or our rights to share in any of the future revenues of products developed by our collaborators. These kinds of disagreements could result in costly and time-consuming litigation. Any such conflicts with our collaborators could reduce our ability to obtain future collaboration agreements and could have a negative impact on our relationship with existing collaborators, adversely affecting our business and revenues. Finally, any of our collaborations or license agreements may prove to be unsuccessful.

Our collaborators could develop competing research, reducing the available pool of potential collaborators and increasing competition, which may adversely affect our business and revenues.

Our collaborators and potential collaborators could develop research tools similar to our own, reducing our pool of possible collaborative parties and increasing competition. Any of these developments could harm our product and technology development efforts, which could seriously harm our business. In addition, we may pursue opportunities in fields that could conflict with those of our collaborators. Developing products that compete with our collaborators' or potential collaborators' products could preclude us from entering into future collaborations with our collaborators or potential collaborators. Any of these developments could harm our product development efforts and could adversely affect our business and revenues.

If restrictions on reimbursements and health care reform limit our collaborators' actual or potential financial returns on therapeutic products that they develop based on our platform technology, our collaborators may reduce or terminate their collaborations with us.

Our collaborators' abilities to commercialize therapeutic and other life science products that are developed through the research tools or services that we provide may depend in part on the extent to which coverage and adequate payments for these products will be available from government payors, such as Medicare and Medicaid, private health insurers, including managed care organizations, and other third-party payors. These payors are increasingly challenging the price of medical products and services. Significant uncertainty exists as to the reimbursement status of newly approved therapeutic and other life science products, and coverage and adequate payments may not be available for these products.

In recent years, officials have made numerous proposals to change the health care system in the U.S. These proposals included measures to limit or eliminate payments for some medical procedures and treatments or subject the pricing of pharmaceuticals and other medical products to government control. Government and other third-party payors increasingly attempt to contain health care costs by limiting both coverage and the level of payments of newly approved health care products. In some cases, they may also refuse to provide any coverage of uses of approved products for disease indications other than those for which the FDA has granted marketing approval. Governments may adopt future legislative proposals and federal, state or private payors for healthcare goods and services may take action to limit their payments for goods and services. Any of these events could limit our ability to form collaborations or collaborators' and our ability to commercialize therapeutic products successfully.

We and our collaborators are subject to extensive and uncertain regulatory requirements, which could adversely affect our ability to obtain regulatory approval in a timely manner, or at all, for products that we identify or develop.

Therapeutic and other life science products are subject to an extensive and uncertain regulatory approval process by the Food and Drug Administration (FDA) and comparable agencies in other countries. The regulation of new products is extensive, and the required process of laboratory testing and human studies is lengthy and expensive.

The burden of these regulations will fall on our collaborating partners, or may be shared with us, to the extent that we are developing proprietary products that are the result of a collaboration effort. The burden of these regulations will fall on us to the extent we are developing proprietary products on our own.

We may not be able to obtain FDA approvals for those products in a timely manner, or at all. We may encounter significant delays or excessive costs in our efforts to secure necessary approvals or licenses. Even if we obtain FDA regulatory approvals, the FDA extensively regulates manufacturing, labeling, distributing, marketing, promotion and advertising after product approval. Moreover, several of our product development areas may involve relatively new technology and have not been the subject of extensive product testing in humans. The regulatory requirements governing these products and related clinical procedures remain uncertain and the products themselves may be subject to substantial review by foreign governmental regulatory authorities that could prevent or delay approval in those countries. Regulatory requirements ultimately imposed on our products could limit our ability to test, manufacture and, ultimately, commercialize our products and thereby could adversely affect our financial condition and results of operations.

Our business depends upon the success of our research tools as alternatives to current research tools.

Our success depends on commercial acceptance of our research tools. We believe that adoption of our research tools by our current and future collaborators will be essential for commercial acceptance of our research tools. We cannot assure you that our research tools will be adopted, or if adopted, that they will be broadly accepted by pharmaceutical, biotechnology and diagnostic companies or various academic institutions.

We believe that recommendations by health care professionals and health care payors will be essential for commercial acceptance of our collaborators' or our products. We cannot assure you that the products we or our collaborators develop will achieve commercial acceptance among patients, physicians or third-party payors. Failure to achieve commercial acceptance would materially adversely affect our business, financial condition and results of operations.

We face intense competition which could result in reduced acceptance and demand for our research tools and products.

The biotechnology industry is subject to intense competition and rapid and significant technological change. We have many potential competitors, including major drug companies, specialized biotechnology firms, academic institutions, government agencies and private and public research institutions. Many of these competitors have significantly greater financial and technical resources, experience and expertise in research and development, preclinical testing, designing and implementing clinical trials; regulatory processes and approvals; production and manufacturing; and sales and marketing of approved products than we have. Principal competitive factors in our industry include the quality and breadth of an organization's technology; management of the organization and the execution of the organization's strategy; the skill and experience of an organization's employees and its ability to recruit and retain skilled and experienced employees; an organization's intellectual property portfolio; the range of capabilities, from target identification and validation to drug and device discovery and development to manufacturing and marketing; and the availability of substantial capital resources to fund discovery, development and commercialization activities.

Large and established companies compete in the biotech market. In particular, these companies have greater experience and expertise than we have in securing government contracts and grants to support their research and development efforts, conducting testing and clinical trials, obtaining regulatory approvals to market products, manufacturing such products on a broad scale and marketing approved products than we have.

Smaller or early-stage companies and research institutions may also prove to be significant competitors, particularly through collaborative arrangements with large and established biotech or other companies, or the obtaining of substantial private financing. We will also face competition from these parties in recruiting and retaining qualified scientific and management personnel.

In order to effectively compete, we will have to make substantial investments in development, testing, manufacturing and sales and marketing or partner with one or more established companies. There is no assurance that we or our collaborators will be successful in commercializing and gaining significant market share for any of products developed in part through use of our technology. Our technologies, products and services also may be rendered obsolete or noncompetitive as a result of products and services introduced by our competitors.

We may have product liability exposure from the sale of our research tools and therapeutic products or the services we provide.

We may have exposure to claims for product liability. Product liability coverage is expensive and sometimes difficult to obtain. Given our operations to date, we currently do not maintain any product liability insurance coverage. At such point that we determine it is prudent to obtain this insurance, we may not be able to obtain or maintain insurance at a reasonable cost. There can be no assurance that existing insurance coverage will extend to other products in the future. Any product liability insurance coverage may not be sufficient to satisfy all liabilities resulting from product liability claims. A successful claim may prevent us from obtaining adequate product liability insurance in the future on commercially desirable items, if at all. Even if a claim is not successful, defending such a claim would be time-consuming and expensive, may damage our reputation in the marketplace, and would likely divert management's attention.

The near and long-term viability of our products and services will depend on our ability to successfully establish strategic relationships.

The near and long-term viability of our products and services will depend in part on our ability to successfully establish new strategic collaborations with biotechnology companies, pharmaceutical companies, universities, hospitals, insurance companies and government agencies. Establishing strategic collaborations is difficult and time-consuming. Potential collaborators may reject collaborations based upon their assessment of our financial, regulatory or intellectual property position. If we fail to establish a sufficient number of collaborations on acceptable terms, we may not be able to commercialize our products or generate sufficient revenue to fund further research and development efforts.

Even if we establish new collaborations, these relationships may never result in the successful development or commercialization of any product or service candidates for several reasons both within and outside of our control.

Although our current focus is on providing drug discovery services and research tools in the research setting, we may develop tissue therapeutic products and seek approval to sell them as medical care. Before we could begin commercial manufacturing of any of our product candidates, we or our manufacturers must pass a pre-approval inspection by the FDA and comply with the FDA's current Good Manufacturing Practices. If our manufacturers fail to comply with these requirements, our product candidates would not be approved. If our collaborators fail to comply with these requirements after approval, we would be subject to possible regulatory action and may be limited in the jurisdictions in which we are permitted to sell products.

We will be dependent on third-party research organizations to conduct some of our future laboratory testing, animal and human studies.

We will be dependent on third-party research organizations to conduct some of our laboratory testing, animal and human studies with respect to therapeutic tissues and other life science products that we may develop in the future. If we are unable to obtain any necessary testing services on acceptable terms, we may not complete our product development efforts in a timely manner. If we rely on third parties for laboratory testing and/or animal and human studies, we may lose some control over these activities and become too dependent upon these parties. These third parties may not complete testing activities on schedule or when we so request. We may not be able to secure and maintain suitable research organizations to conduct our laboratory testing and/or animal and human

studies. We are responsible for confirming that each of our clinical trials is conducted in accordance with our general plan and protocol. Moreover, the FDA and foreign regulatory agencies require us to comply with regulations and standards, commonly referred to as good clinical practices, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the trial participants are adequately protected. Our reliance on third parties does not relieve us of these responsibilities and requirements. If these third parties do not successfully carry out their contractual duties or regulatory obligations or meet expected deadlines, if the third parties need to be replaced or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our pre-clinical development activities or clinical trials may be extended, delayed, suspended or terminated, and we may not be able to obtain regulatory approval for our future product candidates.

We may require access to a constant, steady, reliable supply of products.

To the extent that we develop products for sale, we may be required to complete clinical trials before we can offer such products for sale. Commercialization of products will require access to, or development of, facilities to manufacture a sufficient supply of our product candidates. If we are unable to manufacture our products in commercial quantities, then we will need to rely on third parties. These third-party manufacturers must also receive FDA approval before they can produce clinical material or commercial products. Our products may be in competition with other products for access to these facilities and may be subject to delays in manufacture if third parties give other products greater priority. In addition, we may not be able to enter into any necessary third-party manufacturing arrangements on acceptable terms, or on a timely basis. Furthermore, we would likely have to enter into a technical transfer agreement and share our know-how with the third party manufacturer.

We may rely on third-party suppliers for some our materials.

We may rely on third-party suppliers and vendors for some of the materials we require in our drug discovery and research tool businesses as well as for the manufacture of any product candidates that we may develop in the future. Any significant problem experienced by one of our suppliers could result in a delay or interruption in the supply of materials to us until such supplier resolves the problem or an alternative source of supply is located. Any delay or interruption could negatively affect our operations.

Violation of government regulations or quality programs could harm demand for our products or services, and the evolving nature of government regulations could have an adverse impact on our business.

To the extent that our collaborators or customers use our products in the manufacturing or testing processes for their drug and medical device products, such end-products or services may be regulated by the FDA under Quality System Regulations (QSR) or the Centers for Medicare & Medicaid Services (CMS) under Clinical Laboratory Improvement Amendments of 1988 (CLIA’88) regulations. The customer is ultimately responsible for QSR, CLIA’88 and other compliance requirements for their products; however, we may agree to comply with certain requirements, and, if we fail to do so, we could lose sales and customers and be exposed to product liability claims.

Products that are intended for the diagnosis or treatment of disease are subject to government regulation. Our drug discovery and research tool offerings are currently intended for research or investigational uses. Research uses are not subject to FDA or premarket approval or other regulatory requirements. Investigational uses are not subject to FDA premarket approval or most regulatory requirements, but are subject to limited regulatory controls for entities conducting investigational studies.

As we continue to adapt and develop parts of our product line in the future, including tissue-based products in the field of regenerative medicine, the manufacture and marketing of our products will become subject to government regulation in the United States and other countries. In the United States and most foreign countries, we will be required to complete rigorous preclinical testing and extensive human clinical trials that demonstrate the safety and efficacy of a product in order to apply for regulatory approval to market the product.

The steps required by the FDA before our proposed products may be marketed in the United States include performance of preclinical (animal and laboratory) tests; submissions to the FDA of an IDE (Investigational Device Exemption), NDA (New Drug Application), or BLA (Biologic License Application) which must become effective before human clinical trials may commence; performance of adequate and well-controlled human clinical trials to establish the safety and efficacy of the product in the intended target population; performance of a consistent and reproducible manufacturing process intended for commercial use; Pre-Market Approval Application (PMA); and FDA approval of the PMA before any commercial sale or shipment of the product.

The processes are expensive and can take many years to complete, and we may not be able to demonstrate the safety and efficacy of our products to the satisfaction of such regulatory authorities. The start of clinical trials can be delayed or take longer than anticipated for many and varied reasons, many of which are outside of our control. Safety concerns may emerge that could lengthen the ongoing trials or require additional trials to be conducted. Regulatory authorities may also require additional testing, and we may be required to demonstrate that our proposed products represent an improved form of treatment over existing therapies, which we may be unable to do without conducting further clinical studies. Moreover, if the FDA grants regulatory approval of a product, the approval may be limited to specific indications or limited with respect to our distribution. Expanded or additional indications for approved devices or drugs may not be approved, which could limit our revenues. Foreign regulatory authorities may apply similar limitations or may refuse to grant any approval. Consequently, even if we believe that preclinical and clinical data are sufficient to support regulatory approval for our product candidates, the FDA and foreign regulatory authorities may not ultimately grant approval for commercial sale in any jurisdiction. If our products are not approved, our ability to generate revenues will be limited and our business will be adversely affected.

Even if a product gains regulatory approval, such approval is likely to limit the indicated uses for which it may be marketed, and the product and the manufacturer of the product will be subject to continuing regulatory review, including adverse event reporting requirements and the FDA's general prohibition against promoting products for unapproved uses. Failure to comply with any post-approval requirements can, among other things, result in warning letters, product seizures, recalls, substantial fines, injunctions, suspensions or revocations of marketing licenses, operating restrictions and criminal prosecutions. Any of these enforcement actions, any unanticipated changes in existing regulatory requirements or the adoption of new requirements, or any safety issues that arise with any approved products, could adversely affect our ability to market products and generate revenues and thus adversely affect our ability to continue our business.

We also may be restricted or prohibited from marketing or manufacturing a product, even after obtaining product approval, if previously unknown problems with the product or our manufacture are subsequently discovered and we cannot provide assurance that newly discovered or developed safety issues will not arise following any regulatory approval. With the use of any treatment by a wide patient population, serious adverse events may occur from time to time that initially do not appear to relate to the treatment itself, and only if the specific event occurs with some regularity over a period of time does the treatment become suspect as having a causal relationship to the adverse event. Any safety issues could cause us to suspend or cease marketing of our approved products, possibly subject us to substantial liabilities, and adversely affect our ability to generate revenues.

We are subject to various environmental, health and safety laws.

We are subject to various laws and regulations relating to safe working conditions, laboratory and manufacturing practices, the experimental use of animals, emissions and wastewater discharges, and the use and disposal of hazardous or potentially hazardous substances used in connection with our research, including infectious disease agents. We also cannot accurately predict the extent of regulations that might result from any future legislative or administrative action. Any of these laws or regulations could cause us to incur additional expense or restrict our operations. Compliance with environmental laws and regulations may be expensive, and current or future environmental regulations may impair our research, development or production efforts.

We will depend on our patent portfolio, our licensed technology and other trade secrets in the conduct of our business and must ensure that we do not violate the patent or intellectual rights of others.

Our success in large part depends on our ability to maintain the proprietary nature of our technology and other trade secrets. To do so, we and our licensors must prosecute and maintain existing patents, obtain new patents and pursue trade secret and other intellectual property protection. We also must operate without infringing the proprietary rights of third parties or allowing third parties infringe our rights. Our research, development and commercialization activities, including any product candidates or products resulting from these activities, may infringe or be claimed to infringe patents owned by third parties and as to which we do not hold licenses or other rights. There may be rights that we are not aware of, including applications that have been filed but not published that, when issued, could be asserted against us. These third parties could bring claims against us that would cause us to incur substantial expenses and, if successful, could cause us to pay substantial damages. Further, if a patent infringement suit were brought against us, we could be forced to stop or delay research, development, manufacturing or sales of the product or biologic treatment candidate that is the subject of the suit.

In addition, competitors may infringe our patents or the patents of our collaborators or licensors. As a result, we may be required to file infringement claims to counter infringement for unauthorized use. This can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent owned by us is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover our technology. An adverse determination of any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at the risk of not issuing.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

A significant portion of our sales are dependent upon our customers' capital spending policies and research and development budgets, and government funding of research and development programs at universities and other organizations, which are each subject to significant and unexpected decrease.

Our prospective customers include pharmaceutical and biotechnology companies, academic institutions, government laboratories, and private research foundations. Fluctuations in the research and development budgets at these organizations could have a significant effect on the demand for our products and services. Research and development budgets fluctuate due to changes in available resources, patent expirations, mergers of pharmaceutical and biotechnology companies, spending priorities, general economic conditions, and institutional and governmental budgetary policies, including but not limited to reductions in grants for research by educational institutions. In addition, our business could be seriously damaged by any significant decrease in life sciences research and development expenditures by pharmaceutical and biotechnology companies, academic institutions, government laboratories, or private foundations.

The timing and amount of revenues from customers that rely on government funding of research may vary significantly due to factors that can be difficult to forecast. Research funding for life science research has increased more slowly during the past several years compared to the previous years and has declined in some countries, and some grants have been frozen for extended periods of time or otherwise become unavailable to various institutions, sometimes without advance notice. Government funding of research and development is subject to the political process, which is inherently fluid and unpredictable. Other programs, such as homeland security or defense, or general efforts to reduce the federal budget deficit could be viewed by the United States government as a higher priority. These budgetary pressures may result in reduced allocations to government agencies that fund research and development activities. Past proposals to reduce budget deficits have included reduced National Institute of Health and other research and development allocations. Any shift away from the funding of life sciences research and development or delays surrounding the approval of government budget proposals may cause our customers to delay or forego purchases of our products or services, which could seriously damage our business.

Risks Related to Our Common Stock and Liquidity Risks

Our securities are a "Penny Stock" and subject to specific rules governing their sale to investors.

The SEC has adopted Rule 15g-9 which establishes the definition of a "penny stock," for the purposes relevant to our common stock, as any equity security that has a market price of less than $5.00 per share or with an exercise price of less than $5.00 per share, subject to certain exceptions. For any transaction involving a penny stock, unless exempt, the rules require that a broker or dealer approve a person's account for transactions in penny stocks; and the broker or dealer receive from the investor a written agreement to the transaction, setting forth the identity and quantity of the penny stock to be purchased.

In order to approve a person's account for transactions in penny stocks, the broker or dealer must obtain financial information and investment experience objectives of the person; and make a reasonable determination that the transactions in penny stocks are suitable for that person and the person has sufficient knowledge and experience in financial matters to be capable of evaluating the risks of transactions in penny stocks.

The broker or dealer must also deliver, prior to any transaction in a penny stock, a disclosure schedule prescribed by the SEC relating to the penny stock market, which, in highlight form sets forth the basis on which the broker or dealer made the suitability determination; and that the broker or dealer received a signed, written agreement from the investor prior to the transaction. Generally, brokers may be less willing to execute transactions in securities subject to the "penny stock" rules. This may make it more difficult for investors sell shares of our common stock.

Disclosure also has to be made about the risks of investing in penny stocks in both public offerings and in secondary trading and about the commissions payable to both the broker-dealer and the registered representative, current quotations for the securities and the rights and remedies available to an investor in cases of fraud in penny stock transactions. Finally, monthly statements have to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks.

The Company has a limited trading history and there is no assurance that an active market in the Company's Common Stock will continue at present levels or increase in the future.

There is no established trading market for the Original Warrants nor will there ever be an established trading market for the Amended Warrants. There is limited trading activity in our common stock and there is no assurance that an active market will develop in the future. Although our common stock is currently quoted on the OTCQX, the Company has a limited trading history and there is no assurance that an active market in the Company's Common Stock will continue at present levels or increase in the future. As a result, an investor may find it difficult to dispose of our common stock. There can be no assurance that a more active market for our common stock will develop in the future, or if one should develop, there is no assurance that it will be sustained. This factor limits the liquidity of our common stock, and may have a material adverse effect on the market price of our common stock and on our ability to raise additional capital.

Compliance with the reporting requirements of federal securities laws can be expensive.

We are a public reporting company in the United States, and accordingly, subject to the information and reporting requirements of the Exchange Act and other federal securities laws, and the compliance obligations of the Sarbanes-Oxley Act. The costs of preparing and filing annual and quarterly reports and other information with the SEC and furnishing audited reports to stockholders are substantial. In addition, we will incur substantial expenses in connection with the preparation of the Registration Statement and related documents with respect to the registration of resales of the common stock underlying the Original Warrants.

Applicable regulatory requirements, including those contained in and issued under the Sarbanes-Oxley Act of 2002, may make it difficult for us to retain or attract qualified officers and directors, which could adversely affect the management of its business and its ability to obtain or retain listing of our common stock.

We may be unable to attract and retain those qualified officers, directors and members of board committees required to provide for effective management because of the rules and regulations that govern publicly held companies, including, but not limited to, certifications by principal executive officers. The enactment of the Sarbanes-Oxley Act has resulted in the issuance of a series of related rules and regulations and the strengthening of existing rules and regulations by the SEC, as well as the adoption of new and more stringent rules by the stock exchanges. The perceived increased personal risk associated with these changes may deter qualified individuals from accepting roles as directors and executive officers.

Further, some of these changes heighten the requirements for board or committee membership, particularly with respect to an individual's independence from the corporation and level of experience in finance and accounting matters. We may have difficulty attracting and retaining directors with the requisite qualifications. If we are unable to attract and retain qualified officers and directors, the management of our business and our ability to obtain or retain listing of our shares of common stock on any stock exchange (assuming we elect to seek and are successful in obtaining such listing) could be adversely affected.

We may have undisclosed liabilities and any such liabilities could harm our revenues, business, prospects, financial condition and results of operations.

Even though our pre-merger assets and liabilities were transferred to the Split-Off Shareholders in the Split-Off, there can be no assurance that we will not be liable for any or all of such liabilities. Any such liabilities that survived the Merger could harm our revenues, business, prospects, financial condition and results of operations upon our acceptance of responsibility for such liabilities. The transfer of the operating assets and liabilities to PSOS, coupled with the Split-Off of PSOS, will result in taxable income to us in an amount equal to the difference between the fair market value of the assets transferred and the pre-merger tax basis of the assets. Any gain recognized, to the extent not offset by our net operating loss carryforward, if any, will be subject to federal income tax at regular corporate income tax rates.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or detect fraud. Consequently, investors could lose confidence in our financial reporting and this may decrease the trading price of our stock.

We must maintain effective internal controls to provide reliable financial reports and detect fraud. We have been assessing our internal controls to identify areas that need improvement. We are in the process of implementing changes to internal controls, but have not yet completed implementing these changes. Failure to implement these changes to our internal controls or any others that it identifies as necessary to maintain an effective system of internal controls could harm our operating results and cause investors to lose confidence in our reported financial information. Any such loss of confidence would have a negative effect on the trading price of our stock.

The price of our common stock may continue to be volatile, which could lead to losses by investors and costly securities litigation.

The trading price of our common stock is likely to be highly volatile and could fluctuate in response to factors such as:

- actual or anticipated variations in our operating results;
- announcements of developments by us or our competitors;
- the timing of IDE and/or NDA approval, the completion and/or results of our clinical trials
- regulatory actions regarding our products

- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- adoption of new accounting standards affecting the our industry;
- additions or departures of key personnel;
- introduction of new products by us or our competitors;
- sales of the our common stock or other securities in the open market; and
- other events or factors, many of which are beyond our control.

The stock market is subject to significant price and volume fluctuations. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been initiated against such a company. Litigation initiated against us, whether or not successful, could result in substantial costs and diversion of our management's attention and resources, which could harm our business and financial condition.

Investors may experience dilution of their ownership interests because of the future issuance of additional shares of our common stock.

In the future, we may issue additional authorized but previously unissued equity securities, resulting in the dilution of the ownership interests of our present stockholders. We may also issue additional shares of our common stock or other securities that are convertible into or exercisable for our common stock in connection with hiring or retaining employees, future acquisitions, future sales of our securities for capital raising purposes, or for other business purposes. The future issuance of any such additional shares of common stock may create downward pressure on the trading price of our common stock. There can be no assurance that the we will not be required to issue additional shares, warrants or other convertible securities in the future in conjunction with any capital raising efforts, including at a price (or exercise prices) below the price at which shares of our common stock is currently quoted on the OTCQX.

Our common stock is controlled by insiders.

Our executive officers and directors beneficially own approximately 23% of our outstanding shares of common stock, and Dr. Gabor Forgacs, the father of one of our directors, beneficially owns another 12.7% of our outstanding shares of common stock. Although we are not aware of any voting arrangements between our officers, directors and Dr. Forgacs, such concentrated control may adversely affect the price of our common stock. Investors who acquire our common stock may have no effective voice in the management of our operations. Sales by our insiders or affiliates, along with any other market transactions, could affect the market price of our common stock.

We do not intend to pay dividends for the foreseeable future.

We have paid no dividends on our common stock to date and it is not anticipated that any dividends will be paid to holders of our common stock in the foreseeable future. While our future dividend policy will be based on the operating results and capital needs of our business, it is currently anticipated that any earnings will be retained to finance our future expansion and for the implementation of our business plan. As an investor, you should take note of the fact that a lack of a dividend can further affect the market value of our stock, and could significantly affect the value of any investment.

Anti-takeover provisions in our organizational documents and Delaware law may discourage or prevent a change of control, even if an acquisition would be beneficial to our stockholders, which could affect our stock price adversely and prevent attempts by our stockholders to replace or remove our current management.

Our certificate of incorporation and bylaws contain provisions that could delay or prevent a change of control of our company or changes in our board of directors that our stockholders might consider favorable. Some of these provisions:

- authorize the issuance of preferred stock which can be created and issued by the board of directors without prior stockholder approval, with rights senior to those of the common stock;
- provide for a classified board of directors, with each director serving a staggered three-year term;
- prohibit our stockholders from filling board vacancies, calling special stockholder meetings, or taking action by written consent; and
- require advance written notice of stockholder proposals and director nominations.

In addition, we are subject to the provisions of Section 203 of the Delaware General Corporation Law, which may prohibit certain business combinations with stockholders owning 15% or more of our outstanding voting stock. These and other provisions in our certificate of incorporation, bylaws and Delaware law could make it more difficult for stockholders or potential acquirers to obtain control of our board of directors or initiate actions that are opposed by our then-current board of directors, including delay or impede a merger, tender offer, or proxy contest involving our company. Any delay or prevention of a change of control transaction or changes in our board of directors could cause the market price of our common stock to decline.

Risks related to the Offer to Amend and Exercise.

Our Board of Directors makes no recommendation with regard to whether you should accept the Offer to Amend and Exercise.

Although our Board of Directors has approved the Offer to Amend and Exercise, it makes no recommendation as to whether holders of Original Warrants should accept the Offer to Amend and Exercise. We have not retained and do not intend to retain any unaffiliated representative to act solely on behalf of the holders of Original Warrants for purposes of negotiating the terms of the Offer to Amend and Exercise. We cannot assure you that the value of the shares issued upon exercise of the Amended Warrants will in the future equal or exceed the exercise price per share of the Amended Warrants. We do not take a position as to whether you ought to participate in the Offer to Amend and Exercise.

If you choose to participate in the Offer to Amend and Exercise, you will be required to exercise your Amended Warrants for Common Stock, and will be subject to all the risks associated with being a stockholder of the Company, give up the time value attributable to your Original Warrant and waive your anti-dilution rights.

The Amended Warrants will terminate if the holders do not exercise their Amended Warrants prior to the Expiration Date. If you choose to participate in the Offer to Amend and Exercise, you will be required to exercise your Amended Warrants prior to the Expiration Date. As a result, you will be subject to all the risks and uncertainties set forth in these risk factors as a holder of the Company’s Common Stock. In addition, you will be giving up the time value attributable to your Original Warrant by exercising the Original Warrant, as amended, prior to the original 5-year expiration date. Additionally, the terms of the Amended Warrants delete the anti-dilution provisions set forth in the Bridge and Investors Warrants, and provide that these provisions have no application to the issuance or exercise of the Amended Warrants.

The shares of Common Stock issuable upon exercise of the Amended Warrants are "restricted securities".

The shares of Common Stock issuable upon exercise of the Amended Warrants are "restricted securities" and may not be sold by the holder absent a registration statement covering the resale of the shares or an exemption from the registration requirement. The Company has previously filed a Registration Statement on Form S-1 to register the resale of the shares of Common Stock underlying the Original Warrants under the Securities Act, and amending the Original Warrants through the Offer to Amend and Exercise will not affect the registration for holders named as selling shareholders in the Registration Statement. Consequently, the shares of Common Stock issuable upon exercise of the Amended Warrants have been registered, and are tradable in accordance with the resale restrictions set forth in the "Plan of Distribution" section of the Prospectus in the Registration Statement. Each holder of Original Warrants should read the applicable Prospectus carefully before deciding whether to participate in the Offer to Amend and Exercise. In addition, any holder (including any transferees or acquirers) of an Original Warrant or Amended Warrant who is not listed as a selling stockholder in the Prospectus cannot resell such holder's shares in reliance on the Prospectus, unless and until the Company files a post-effective amendment to the Registration Statement to include such holder as a selling stockholder. Absent the filing of the post-effective amendment to the Registration Statement, the holder (including any transferees or acquirers) will be required to qualify for an exemption from the registration requirements, which may require a holding period of at least six months.

The shares of Common Stock issuable upon exercise of the Amended Warrants are subject to resale and market restrictions.

The shares of Common Stock issuable upon exercise of the Amended Warrants are subject to lock up provisions that provide that the holder will not sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any of such shares without the prior written consent of the Company for twenty (20) days after the Expiration Date (the "**Lock-Up Period**"). The Company may impose stop-transfer restrictions to enforce these lock-up restrictions. In addition, a holder, acting alone or with others, participating in the Offer to Amend and Exercise has agreed not to effect any purchases or sales of any securities of the Company in any "short sales" as defined in Rule 200 promulgated under Regulation SHO under the Exchange Act, or any type of direct and indirect stock pledges, forward sale contracts, options, puts, calls, short sales, swaps, "put equivalent positions" (as defined in Rule 16a-1(h) under the Exchange Act) or similar arrangements, or sales or other transactions through non-U.S. broker dealers or foreign regulated brokers through the expiration of the Lock-Up Period. As a result, the holder will be subject to market and the other risks discussed herein during the period of these resale and market restrictions

If you do not choose to participate in the Offer to Amend and Exercise, your Investor Warrants may be subject to redemption in the future.

The Investor Warrants may be redeemed by the Company at a redemption price of $0.0001 if the Company's common stock trades above $2.50 per share for twenty (20) consecutive trading days and you fail to exercise your Investor Warrants by the date set by the Company in a notice provided to the holders of the Investor Warrants of the Company's election to redeem the Investor Warrants. Accordingly, if you choose not to participate in the Offer to Amend and Exercise, your warrants may be subject to redemption if and when the Company's common stock trades above $2.50 per share for twenty (20) consecutive trading days.

Income tax consequences of participation in the Offer to Amend and Exercise.

We have not obtained and do not intend to obtain a ruling from the Internal Revenue Service ("IRS") regarding the U.S. federal income tax consequences of amending the Original Warrants and immediately exercising the Amended Warrants. You should consult with your own tax advisor with regard to the possibility of any federal, state, local or other tax consequences of the Offer to Amend and Exercise. See Section 19 "Material U.S. Federal Income Tax Consequences" under "Description of Offer."

We will have substantial discretion over the use of proceeds we receive from the exercise of Amended Warrants.

Our management will retain broad discretion over the use of proceeds from the Offer to Amend and Exercise. See Section 2 “Purposes of the Offer to Amend and Exercise and Use of Proceeds” for a description of our present intentions with respect to the allocation of the proceeds resulting from exercise of the Amended Warrants. The amounts and timing of the expenditures may vary significantly depending on numerous factors. The occurrence of certain unforeseen events or changed business conditions, however, could result in the application of the proceeds resulting from the exercise of the Amended Warrants in a manner other than as described in this Offer to Amend and Exercise.

DESCRIPTION OF THE OFFER TO AMEND AND EXERCISE

Organovo Holdings, Inc. (the "**Company**") is offering to amend, upon the terms and subject to the conditions set forth herein, warrants to purchase an aggregate of 14,510,928 shares of common stock (the "**Offer to Amend and Exercise**"), including: (i) outstanding warrants to purchase 1,500,000 shares of the Company's common stock issued to investors participating in the Company's bridge financing completed in November 2011 (the "**Bridge Warrants**"); (ii) outstanding warrants to purchase 11,653,678 shares of the Company's common stock issued to investors participating in the Company's private placement financings closed on February 8, 2012, February 29, 2012 and March 16, 2012 (the "**Investor Warrants**"); and (iii) outstanding warrants to purchase 1,357,250 shares of the Company's common stock issued to investors in the Company's private placement transactions completed in 2011 (the "**Private Warrants**" and collectively with the Bridge Warrants and the Investor Warrants, the "**Original Warrants**"). There is no minimum participation requirement with respect to this Offer to Amend and Exercise.

Pursuant to the Offer to Amend and Exercise, the Original Warrants will be amended (the "**Amended Warrants**"**)** to: (i) reduce the exercise price of the Original Warrants from $1.00 per share to $0.80 per share of common stock in cash, (ii) shorten the exercise period of the Original Warrants so that they expire concurrently with the expiration of the Offer to Amend and Exercise at 5:00 p.m. (Pacific Time) on December 17, 2012, as may be extended by the Company in its sole discretion ("**Expiration Date**"), (iii) delete the price-based anti-dilution provisions contained in the Original Warrants, (iv) restrict the ability of the holder of shares issuable upon exercise of the Amended Warrants to sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any of such shares without the prior written consent of the Company for a period of twenty (20) days after the Expiration Date (the "**Lock-Up Period**"); and (v) provide that a holder, acting alone or with others, will agree not to effect any purchases or sales of any securities of the Company in any "short sales" as defined in Rule 200 promulgated under Regulation SHO under the Exchange Act, or any type of direct and indirect stock pledges, forward sale contracts, options, puts, calls, short sales, swaps, "put equivalent positions" (as defined in Rule 16a-1(h) under the Exchange Act) or similar arrangements, or sales or other transactions through non-U.S. broker dealers or foreign regulated brokers through the expiration of the Lock-Up Period. Other than set forth above, the terms of the Original Warrants will remain unmodified and in full force and effect.

SECTION 1. FORWARD LOOKING STATEMENTS

This Offer to Amend and Exercise contains forward-looking statements. These statements relate to anticipated future events, future results of operations or future financial performance. In some cases, you can identify forward-looking statements by terminology such as "may," "might," "will," "should," "intends," "expects," "plans," "goals," "projects," "anticipates," "believes," "estimates," "predicts," "potential," or "continue" or the negative of these terms or other comparable terminology. These forward-looking statements are only expectations, are uncertain and involve substantial known and unknown risks, uncertainties and other factors which may cause the Company's (or its industry's) actual results, levels of activity or performance to be materially different from any future results, levels of activity or performance expressed or implied by these forward-looking statements. The factors that could cause the Company's actual 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 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. The "Risk Factors" section of this Offer to Amend and Exercise sets forth detailed risks, uncertainties and cautionary statements regarding the Company's business, the Company's common stock and the risks of participating in the Offer to Amend and Exercise. 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 the Company may issue in the future. Except

as required by applicable law, the Company does 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.

SECTION 2. PURPOSES OF THE OFFER TO AMEND AND EXERCISE AND USE OF PROCEEDS

Reduction of Warrant Liability: The Offer to Amend can help the Company reduce the warrant liability recorded by the Company on its financial statements. The warrant liability serves as an impediment to certain goals of the Company, as significant warrant liability on the Company's balance sheet may make it more difficult for the Company to list its shares of common stock on a national securities exchange. The Bridge Warrants and Investor Warrants contain price-based anti-dilution provisions that provide the holders with protection against future down-round financings. Based on these anti-dilution provisions, the Company is required to record a derivative liability on its balance sheet each fiscal quarter for these Bridge Warrants and Investor Warrants based on the fair value of the Bridge Warrants and Investor Warrants as of the end of such fiscal quarter. The Company's obligation to continue to record a derivative liability each quarter for a particular Bridge Warrant or Investor Warrant ends when the Bridge Warrant or Investor Warrant is exercised or expires. Various factors are considered in the pricing models the Company used to value the Bridge Warrants and Investor Warrants, including the Company's current stock price, the remaining life of the Bridge Warrants and Investor Warrants, the volatility of the Company's stock price, and the risk free interest rate. As a result of the changes in these factors, the warrant liability recorded by the Company was approximately $47.5 Million, $80.6 Million and $35.5 Million for the fiscal quarters ended March 31, June 30 and September 30, 2012, respectively. Future changes in these factors will continue to have a significant impact on the computed fair value of the derivative liability for these Bridge Warrants and Investor Warrants. As such, the Company expects future changes in the fair value of the Bridge Warrants and Investor Warrants to continue to vary significantly from quarter to quarter. The Company believes these significant variations make it more difficult for investors to evaluate the Company's business and operations.

Fund Raising: An additional purpose of the Offer to Amend and Exercise is to raise funds to support the Company's future operations and capital requirements by encouraging the participating holders to exercise their Original Warrants by significantly reducing the exercise price and shortening the exercise period. The funds obtained will be used by the Company as working capital and for other general corporate purposes.

SECTION 3. ELIGIBILE ORIGINAL WARRANTS

The following Original Warrants are subject to the Offer to Amend and Exercise:

Bridge Warrants: Outstanding warrants to purchase 1,500,000 shares of the Company's common stock issued to investors participating in the Company's bridge financing completed in November 2011, as amended;

Investor Warrants: Outstanding warrants to purchase 11,653,678 shares of the Company's common stock issued to investors participating in the Company's private placement financings closed on February 8, 2012, February 29, 2012 and March 16, 2012, as amended; and

Private Warrants: Outstanding warrants to purchase 1,357,250 shares of the Company's common stock issued to investors in the Company's private placement transactions completed in 2011.

SECTION 4. EXPIRATION DATE

The Offer to Amend and Exercise will be open through 5:00 p.m., Pacific Time on December 17, 2012, as may be extended by the Company in its sole discretion.

SECTION 5. TERMS OF AMENDED WARRANTS

Pursuant to the Offer to Amend and Exercise, the Original Warrants will be amended as described below:

New Exercise Price: The exercise price of the Original Warrants will be reduced from $1.00 per share to $0.80 per share.

New Termination Date: The termination date of the Original Warrants is being shortened to run concurrently with the Expiration Date.

Lock-Up Period: The Amended Warrants will contain a lock-up provision that provides that the holder will not sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any of the shares issuable upon exercise of the Amended Warrants without the prior written consent of the Company for a period of twenty (20) days after the Expiration Date. In addition, the Company may impose stop-transfer restrictions to enforce these restrictions.

No Cashless Exercise: The Amended Warrants must be exercised for cash, and any cashless exercise provisions in the Original Warrants will be inapplicable to the Offer to Amend and Exercise. The shares of common stock issuable upon the exercise of the Amended Warrants will be issued to the holder promptly after the holder's exercise of the Amended Warrants.

Anti-Dilution: The price-based anti-dilution provisions contained in the Bridge Warrants and Investor Warrants will be deleted. Any price-based anti-dilution provisions in the Original Warrants will be inapplicable to the Offer to Amend and Exercise.

Market Restrictions: A holder will agree not to effect any purchases or sales of any securities of the Company, acting alone or with others, in any "short sales" as defined in Rule 200 promulgated under Regulation SHO under the Exchange Act, or any type of direct and indirect stock pledges, forward sale contracts, options, puts, calls, short sales, swaps, "put equivalent positions" (as defined in Rule 16a-1(h) under the Exchange Act) or similar arrangements, or sales or other transactions through non-U.S. broker dealers or foreign regulated brokers through the expiration of the Lock-Up Period.

Other Terms: Except as set forth above all other terms of the Amended Warrants will be the same as the terms of the Original Warrants. See the forms of Amended Warrants attached hereto as Exhibits (a)(1)(E), (a)(1)(F) and (a)(1)(G) to the Schedule TO.

SECTION 6. CONDITIONS TO THE OFFER TO AMEND AND EXERCISE

The Offer to Amend and Exercise is subject to certain conditions, as described herein:

(i) As part of the Election to Participate and Exercise Warrant, the holders of the Original Warrants must complete an Accredited Investor Questionnaire. The holders of the Original Warrants previously represented to the Company that they were "accredited investors" in connection with the transactions in which such holders acquired the Original Warrants. The Company has included with this Offer to Amend and Exercise an exhibit titled "Supplemental Company Information" that contains additional information that holders of Original Warrants who are no longer "accredited investors," if any, should consider before making an investment decision. However, the Company will not accept any Election to Participate and Exercise Warrant from or on behalf of, any Original Warrant holders if the Company determines that a valid securities exemption is not available under the Securities Act.

(ii) In addition, we are not making this Offer to Amend and Exercise to, nor will we accept any Election to Participate and Exercise Warrant from or on behalf of, Original Warrant holders in any jurisdiction in which the Offer to Amend and Exercise or the exercise of the Amended Warrants would not be in compliance with the laws of such jurisdiction.

You may not elect to amend but not exercise your Original Warrants. Participation in this Offer to Amend and Exercise requires both amendment of your Original Warrants and your exercise of the Amended Warrants, which will happen simultaneously should you choose to participate.

Original Warrants of holders that elect not to participate and exercise will remain outstanding pursuant to their original terms.

SECTION 7. EXTENSION OF OFFER TO AMEND AND EXERCISE PERIOD; TERMINATION; AMENDMENTS

The Company expressly reserves the right, in its sole discretion and at any time or from time to time, to extend the Expiration Date.

There can be no assurance, however, that the Company will exercise its right to extend the Offer to Amend and Exercise. Amendments to the Offer to Amend and Exercise will be made by written notice thereof to the holders of the Original Warrants. Material changes to information previously provided to holders of the Original Warrants in this Offer to Amend and Exercise or in documents furnished subsequent thereto will be disseminated to holders of Original Warrants. Also, should the Company, pursuant to the terms and conditions of the Offer to Amend and Exercise, materially amend the Offer to Amend and Exercise, the Company will ensure that the Offer to Amend and Exercise remains open long enough to comply with U.S. federal securities laws.

If the Company materially changes the terms of the Offer to Amend and Exercise or the information concerning the Offer to Amend and Exercise, or it waives a material condition of the Offer to Amend and Exercise, the Company will extend the Offer to Amend and Exercise to the extent required under applicable law. The minimum period during which an offer must remain open following any material change in the terms of the Offer to Amend and Exercise or information concerning the Offer to Amend and Exercise (other than a change in price, change in dealer's soliciting fee or change in percentage of securities sought all of which require up to ten (10) additional business days) will depend on the facts and circumstances, including the relative materiality of such terms or information.

SECTION 8. PROCEDURE FOR PARTICIPATING IN OFFER TO AMEND AND EXERCISE AND EXERCISING AMENDED WARRANTS

To participate in the Offer to Amend and Exercise and exercise an Amended Warrant and receive the number of shares of Company common stock issuable therefor, you must deliver to the Company before the Expiration Date all of the following: (i) a signed copy of the Election to Participate and Exercise Warrant, (ii) a signed copy of an Accredited Investor Questionnaire, (iii) the original copy of your Original Warrant (or an Affidavit of Lost Warrant) for cancellation, and (iv) cash in the amount equal to $0.80 per share multiplied by the number of shares of common stock the holder elects to purchase (collectively, the "Acceptance and Exercise Documents"). The cash exercise price may be tendered in the form of a check payable to Organovo Holdings, Inc. or by wire transfer to the Company's account as set forth in the Election to Participate and Exercise Warrant. Each of these items must be properly delivered, before the Expiration Date to: Organovo Holdings, Inc., 6275 Nancy Ridge Drive, San Diego, CA 92121, Attn: Corporate Secretary, telephone number (858) 550-9994.

SECTION 9. MANNER OF ACCEPTANCE OF PAYMENT AND ISSUANCE OF SHARES

If you properly tender (and do not validly withdraw) your Original Warrants and the other Acceptance and Exercise Documents on or prior to 5:00 p.m., Pacific Time on December 17, 2012, the Expiration Date of the Offer to Amend and Exercise (or such later date and time if we extend the Offer to Amend and Exercise), promptly following the Expiration Date, we intend to notify our depositary institution and our transfer agent of our acceptance of your payment of the exercise price and your other Acceptance and Exercise Documents and issue and deliver to you the number of shares of Company common stock issuable under the Amended Warrant .. See Section 8 "Procedure for Participating in Offer to Amend and Exercise and Exercising Amended Warrants" below.

SECTION 10. WITHDRAWAL RIGHTS

If you change your mind and do not want to participate in the Offer to Amend and Exercise, you may submit the Notice of Withdrawal to us. However, to be effective, the Notice of Withdrawal must be properly completed and must be returned, before the 5:00 p.m., Pacific Time on December 17, 2012, the Expiration Date of the Offer to Amend and Exercise (or such later date and time if we extend the Offer to Amend and Exercise), to: Organovo Holdings, Inc., 6275 Nancy Ridge Drive, San Diego, CA 92121, Attn: Corporate Secretary, telephone number (858) 550-9994. Following the Expiration Date, you cannot withdraw your Election to Participate and Exercise Warrant. However, if we have not accepted your tendered Original Warrants and other Acceptance and Exercise Documents by January 16, 2013, which is the fortieth business day from the commencement of the Offer to Amend and Exercise, you may change your mind and submit a Notice of Withdrawal to us after January 16, 2013.

If you properly withdraw in a timely manner as set forth above, we will promptly: (i) cancel your signed copy of the Election to Participate and Exercise Warrant, (ii) return the original copy of your Original Warrant (which will remain unmodified and in full force and effect), or issue you a new Original Warrant if you submitted an Affidavit of Lost Warrant, and (iii) provide you with a check equal to the amount of cash you paid upon exercise of the Amended Warrant.

SECTION 11. REGISTRATION OF WARRANT SHARES

The Original Warrants, the Amended Warrants and the shares of common stock issuable upon exercise of the Original or Amended Warrants are “restricted securities” and may not be sold by the holder absent a registration statement covering the resale of the shares or an exemption from the registration requirement. There is no established trading market for the Original Warrants or the Amended Warrants, and we do not intend to list the Original Warrants or the Amended Warrants for trading on any exchange or market.

We have previously filed a Registration Statement on Form S-1 (File No. 333-182101) (the **“Registration Statement”**) to register the resale of the shares of common stock underlying the Original Warrants under the Securities Act. Promptly following the Expiration Date, we intend to file a prospectus supplement to the prospectus included in the Registration Statement to reflect the substantive changes from the information currently set forth in such prospectus as a result of the Offer to Amend and Exercise Thereafter, the holders of shares of common stock issuable upon exercise of the Amended Warrants who are listed as selling stockholders in the Registration Statement may sell their shares of common stock in accordance with the resale restrictions set forth in the “Plan of Distribution” section of the Prospectus in the Registration Statement. Each holder of Original Warrants should read the applicable Prospectus carefully before deciding whether to participate in the Offer to Amend and Exercise. In addition, any holder (including any transferees or acquirers) of an Original Warrant or Amended Warrant who is not listed as a selling stockholder in the Prospectus cannot resell such holder’s shares in reliance on the Prospectus, unless and until the Company files a post-effective amendment to the Registration Statement to include such holder as a selling stockholder. Absent the filing of the post-effective amendment to the Registration Statement, the holder (including any transferees or acquirers) will be required to qualify for an exemption from the registration requirements, which may require a holding period of at least six months.

SECTION 12. TRADING MARKET AND PRICE RANGE OF ORIGINAL WARRANTS, AMENDED WARRANTS AND COMMON STOCK

There is no established trading market for the Original Warrants or the Amended Warrants.

Prior to February 15, 2012, our common stock was available for trading in the over-the-counter market and was quoted on the OTCQB and the OTCBB under the symbol “RERR.” From February 15, 2012 through October 7, 2012, our stock traded under the symbol “ONVO” and was quoted on the OTCQB. Commencing on October 8, 2012, our stock traded under the symbol “ONVO” and was quoted on the OTCQX. Prior to February 15, 2012, there was no bid history for the “ONVO” common stock, because the common stock had never been traded.

The following table sets forth the high and low last-bid prices for our common stock for the periods indicated, as reported by the OTC. The quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission, and may not represent actual transactions.

	2012	
	High	Low
First quarter (February 15th through March 31st)	$ 2.63	$1.24
Second quarter	$10.90	$2.00
Third quarter	$ 4.43	$1.49
Fourth quarter (through December 3rd)	$ 3.39	$1.80

Trades in our common stock may be subject to Rule 15g-9 of the Exchange Act, which imposes requirements on broker/dealers who sell securities subject to the rule to persons other than established customers and accredited investors. For transactions covered by the rule, broker/dealers must make a special suitability determination for purchasers of the securities and receive the purchaser's written agreement to the transaction before the sale.

The SEC also has rules that regulate broker/dealer practices in connection with transactions in "penny stocks." Penny stocks generally are equity securities with a price of less than $5.00 (other than securities listed on certain national exchanges, provided that the current price and volume information with respect to transactions in that security is provided by the applicable exchange or system). The penny stock rules require a broker/dealer, before effecting a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document prepared by the SEC that provides information about penny stocks and the nature and level of risks in the penny stock market. The broker/dealer also must provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker/dealer and its salesperson in the transaction, and monthly account statements showing the market value of each penny stock held in the customer's account. The bid and offer quotations, and the broker/dealer and salesperson compensation information, must be given to the customer orally or in writing before effecting the transaction, and must be given to the customer in writing before or with the customer's confirmation. These disclosure requirements may have the effect of reducing the level of trading activity in the secondary market for shares of our common stock. As a result of these rules, investors may find it difficult to sell their shares.

SECTION 13. SOURCE AND AMOUNT OF FUNDS

Because this transaction is solely an offer to holders to amend their outstanding Original Warrants, there are no funds or other consideration being paid to participants. The Company will use its existing working capital to pay the fees and expenses associated with this Offer to Amend and Exercise.

SECTION 14. TRANSACTIONS AND AGREEMENTS CONCERNING ORIGINAL WARRANTS

Except with respect to the Warrant Agent Agreement described in Item 8(b) of the Summary Term Sheet, none of our directors or executive officers participated in any transaction involving the Original Warrants during the past 60 days.

SECTION 15. INFORMATION REGARDING THE COMPANY

The following summary highlights selected information regarding the Company. Because it is a summary, it does not contain all of the information you should consider before making a decision to participate in the Offer to Amend and Exercise or exercise your Amended Warrant. Before making an investment decision, you should read the entire Offer to Amend and Exercise carefully, including the "Risk Factors" section above.

Overview

We have developed and are commercializing a platform technology for the generation of three-dimensional (3D) human tissues that can be employed in drug discovery and development, biological research, and as

therapeutic implants for the treatment of damaged or degenerating tissues and organs. We intend to introduce a paradigm shift in the approach to the generation of three-dimensional human tissues, by creation of constructs in 3D that have the potential to replicate native human biology. We can improve on previous technologies by moving away from monolayer 2D cell cultures and by enabling all or part of the tissues we create to be constructed solely of cells. We believe our expertise in printing small-diameter, fully cellular human blood vessels *in vitro* provides a strong foundation upon which other tissues can be built to replicate human biology and human disease. We believe that our broad and exclusive commercial rights to patented and patent-pending 3D bioprinting technology, combined with strengths in engineering and biology, put us in an ideal position to provide a wide array of products for use in research, drug discovery and regenerative medicine therapies.

Our foundational proprietary technology derives from research led by Dr. Gabor Forgacs, a Professor of Biophysics at the University of Missouri. We have a broad portfolio of intellectual property rights covering principles, enabling instrumentation applications and methods of cell based printing, including exclusive licenses to certain patented and patent pending technologies from the University of Missouri-Columbia and Clemson University, and outright ownership of six pending patent applications (the patents and patent rights described in this paragraph are sometimes collectively referred to as the “Intellectual Property Rights”). We believe that our portfolio of Intellectual Property Rights provides a strong and defensible market position for the commercialization of 3D bioprinting technology.

We believe we have the potential to build and maintain a sustainable business by leveraging our core technology platform across a variety of applications. As part of our business strategy we intend to pursue collaboration agreements with drug development companies that will allow us to further develop our 3D bioprinting technology and the potential uses of the cellular structures and tissues that can be produced with our technology. We also plan to develop research products with our 3D bioprinting technology that can be offered to third parties involved in drug discovery. We currently have collaborative research agreements currently in effect with Pfizer, Inc. (“Pfizer”) and United Therapeutic Corporation (“Unither”). As of March 31, 2012, we have also secured five federal grants in the aggregate amount of approximately $955,000 including Small Business Innovation Research grants and developed the NovoGen MMX Bioprinter™ (our first-generation 3D bioprinter) — within two and one half years of opening our first facilities. We believe these corporate achievements provide strong validation for the commercial viability of our technology.

As of September 30, 2012, we had devoted substantially all of our efforts to product development, raising capital and building infrastructure. We did not, as of that date, realize significant revenues from our planned principal operations. Accordingly, we are considered to be in the development stage.

The Technology

Our technology is centered around a core 3D bioprinting method, represented by our bioprinting instrument, the NovoGen MMX Bioprinter™. The 3D bioprinting technology enables a wide array of tissue compositions and architectures to be created, using combinations of cellular ‘bio-ink’ (building blocks comprised solely of cells), hydrogel (building blocks comprised of biocompatible gels), or hybrid ‘bio-ink’ (building blocks comprised of a mixture of cells and material such as hydrogel). A key distinguishing feature of our bioprinting platform is the ability to generate three-dimensional constructs that have all or some of their components comprised entirely of cells. The fully-cellular feature of our technology enables architecturally- and compositionally-defined 3D human tissues to be generated for *in vitro* use in drug discovery and development to potentially replicate the functional biology of a solid, fully cellular tissue. Furthermore, fully cellular constructs may offer specific advantages for regenerative medicine applications where bioactive cells are required and three-dimensional configuration is necessary, such as augmenting or replacing functional mass in tissues and organs that have sustained acute or chronic damage.

We plan to develop research products with our 3D bioprinting technology that can be offered to third parties involved in drug discovery. We intend to deliver the following products to the market:

- Three-dimensional models of human tissue for utilization in traditional absorption, distribution, metabolism, excretion (ADME) / toxicology (TOX) / and drug metabolism and pharmacokinetics (DMPK) testing in drug development.
- Specific models of human biology or pathophysiology, in the form of three-dimensional human tissues, and for use in drug discovery, development, and delivery.
- Three-dimensional human tissues for use as therapeutic regenerative medicine products, such as blood vessels for bypass grafting, nerve grafts for nerve damage repair and cardiac patches for treatment of heart disease.
- 3D bioprinters for use in medical research.
- A portfolio of consumables for use in 3D bioprinting.

As part of our business strategy we intend to pursue collaboration agreements with drug development companies that will allow us to further develop our 3D bioprinting technology and the potential uses of the cellular structures and tissues that can be produced with our technology. We currently have a collaborative research agreement with Pfizer to develop specific three-dimensional tissue models. We are engaged in the development of specific 3D human tissues to aid Pfizer in discovery of successful therapies in two areas of interest. In addition, in October 2011, we entered into a research agreement with Unither to establish and conduct a research program to discover treatments for pulmonary hypertension using our NovoGen MMX Bioprinter™ technology.

Market Opportunity

We believe that our bioprinting technology is uniquely positioned to provide three-dimensional human tissues for use in drug discovery and development as well as a broad array of tissues suitable for therapeutic use in regenerative medicine applications. While there are rapid-prototyping printers currently available that build three-dimensional structures out of polymers (often used for prototyping of plastic parts for tools or devices), these instruments are not specifically designed or intended for use with purely cellular inks in building biologic tissues and we do not believe that the firms working on these instruments have the required biology expertise to create tissues using these instruments at this time. There are multiple markets addressable by our technology platform:

- ***Specialized Models for Drug Discovery and Development:*** Our NovoGen MMX Bioprinter™ can produce highly specialized three-dimensional human tissues that can be utilized to model a specific tissue physiology or pathophysiology. Our bioprinting technology has demonstrated the ability to create human blood vessel constructs, and to create fully human tissue containing capillary structures. These capabilities are anticipated to broaden the scope and scale of 3D tissues that can be generated, and to facilitate the development of disease models in such areas as cardiovascular disease, oncology, and fibrosis.
- ***Biological Research Tools:*** Absorption, distribution, metabolism, excretion (ADME) testing is used to determine which factors enhance or inhibit how a potential drug compound reaches the blood stream. Distribution of a compound can be affected by binding to plasma proteins; age, genetics, and other factors can influence metabolism of a compound; and the presence of certain disease states can have effects on excretion of a compound. Many companies perform ADME studies utilizing various cell-based assays or automated bioanalytical techniques. Drug metabolism and pharmacokinetics (DMPK) testing is a subset of ADME. Determining the DMPK properties of a drug helps the drug developer to understand its safety and efficacy. Toxicology (TOX) testing is a further requirement to determine the detrimental effects of a particular drug on specific tissues. We believe that the NovoGen MMX Bioprinter™ is positioned to deliver highly differentiated products for use in traditional cell-based ADME / TOX / DMPK studies. Products in this arena may replace or complement

traditional cell-based assays that typically employ primary hepatocytes, intestinal cell lines, renal epithelial cells and cell lines grown in a traditional two-dimensional format. Importantly, the combination of tissue-like three-dimensionality and human cellular components is believed to provide an advantage over non-human animal systems toward predicting in vivo human outcomes.

- ***Regenerative Medicine:*** The field of regenerative medicine is advancing via multiple strategic approaches in development and practice, including cell therapies and scaffold-based products (+/- cells). The architectural precision and flexibility of our technology may facilitate the optimization, development, and clinical use of three-dimensional tissue constructs. Importantly, our technology offers a next-generation strategy whereby three-dimensional structures can be generated without the use of scaffolding or biomaterial components. The ultimate goal is to enable fully cellular constructs to be generated in a configuration compatible with surgical modes of delivery, thereby enabling restoration of significant functional mass to a damaged tissue or organ. We believe that our technology can capitalize, via strategic partnerships, on additional market opportunities in the provision of enabling tools for drug discovery and development as well as the discovery and development of therapeutic implants that augment or replace damaged tissues and organs. There are multiple short- and long-term revenue opportunities for us in these areas, including direct sales of 3D human tissue constructs for drug screening and development, licensing fees for commercial access to our technology, and royalties from product enablement, particularly in the area of therapeutic products for regenerative medicine.

Corporate Background

Real Estate Restoration and Rental, Inc. (“RERR”), our predecessor company, was incorporated in 2007 in the State of Nevada. On December 28, 2011, RERR entered into an Agreement and Plan of Merger pursuant to which RERR merged with its newly formed, wholly owned subsidiary, Organovo Holdings, Inc. (“Merger Sub”), a Nevada corporation (the “RERR Merger”). Upon the consummation of the RERR Merger, the separate existence of Merger Sub ceased and RERR, the surviving corporation in the RERR Merger, became known as Organovo Holdings, Inc. (“Holdings-Nevada”).

As permitted by Chapter 92A.180 of Nevada Revised Statutes, the sole purpose of the RERR Merger was to effect a change of RERR’s name. Upon the filing of Articles of Merger with the Secretary of State of Nevada on December 28, 2011 to effect the RERR Merger, RERR’s articles of incorporation were deemed amended to reflect the change in RERR’s corporate name.

On January 30, 2012, Holdings-Nevada entered into an Agreement and Plan of Merger pursuant to which Holdings-Nevada merged with and into its newly formed, wholly owned subsidiary, Organovo Holdings, Inc. (“Holdings-Delaware” or “Pubco”), a Delaware corporation (the “Reincorporation Merger”). Upon the consummation of the Reincorporation Merger, the separate existence of Holdings-Nevada ceased and Holdings-Delaware was the surviving corporation in the Reincorporation Merger. The sole purpose of the Reincorporation Merger was to change the domicile of Pubco from Nevada to Delaware.

On February 8, 2012, Organovo Acquisition Corp. (“Acquisition Corp.”), a wholly-owned subsidiary of Pubco, merged (the “Merger”) with and into Organovo, Inc., a Delaware corporation (“Organovo”). Organovo was the surviving corporation of that Merger. As a result of the Merger, Pubco acquired the business of Organovo, and will continue the existing business operations of Organovo.

SECTION 16. HISTORICAL AND PRO-FORMA FINANCIAL INFORMATION REGARDING THE COMPANY

The Company has included its financial statements for the fiscal years ended December 31, 2011 and 2010 and for the quarterly period ended September 30, 2012 attached hereto as Exhibits A and B, respectively. The Company has also included pro forma information reflecting the effect of the Offer to Amend and Exercise below. The Company’s book value per share as of September 30, 2012, based on 46,969,141 shares of common stock outstanding on such date, was ($0.58) per share.

Pro Forma Financial Data

The following tables present unaudited pro forma condensed financial data for the Company disclosing the effect of the Offer to Amend and Exercise on the Company's:

(i) balance sheet as of September 30, 2012;

(ii) statement of income and earnings per share for the quarterly period ended September 30, 2012; and

(iii) book value per share as of September 30, 2012.

In preparing this pro forma condensed financial data the Company assumed that all holders of Original Warrants elected to participate in the Offer to Amend and Exercise for all 14,510,928 warrant shares eligible to participate in such Offer to Amend and Exercise and that the Offer to Amend and Exercise was completed as of the end of the quarterly period ended September 30, 2012. The pro forma condensed financial data is presented for informational and illustrative purposes only. The data does not purport to represent what our consolidated financial data would have been if the Offer to Amend and Exercise was completed for all eligible warrant shares as of September 30, 2012, and the data does not purport to project our future consolidated statement of operations or financial position. Numbers are in thousands, except for share and per share data.

	Three Months Ended September 30, 2012			Nine Months Ended September 30, 2012		
	Actual	Adjustments	Pro-forma	Actual	Adjustments	Pro-forma
Statement of Operations Data						
Net revenues	$ 469,238	$ -	$ 469,238	$ 848,213	$ -	$ 848,213
Gross profit	$ 469,238	$ -	$ 469,238	$ 848,213	$ -	$ 848,213
Operating loss	$ (3,617,699)	$ -	$ (3,617,699)	$ (6,396,501)	$ -	$ (6,396,501)
Net income (loss)	$ 38,478,043	$ 25,374,792	$ 63,852,835	$ (33,987,693)	$ 25,374,792	$ (8,612,901)
Net income (loss) per share			-			-
Basic	$ 0.87	$ 0.57	$ 1.44	$ (0.86)	$ 0.64	$ (0.22)
Diluted	$ 0.69	$ 0.64	$ 1.33	$ (0.86)	$ 0.64	$ (0.22)
Shares used in computation						
Basic	44,099,554	157,727	44,257,281	39,349,681	52,576	39,402,257
Diluted	55,849,360	(7,675,418)	48,173,942	39,349,681	52,576	39,402,257

	As of September 30, 2012		
	Actual	Adjustments	Pro-forma
Balance Sheet Data			
Current assets	8,228,092	11,306,567	19,534,659
Non-current assets	815,131	-	815,131
Current liabilities	976,225	-	976,225
Long-term liabilities	35,491,239	(25,374,792)	10,116,447
Stockholders' equity (deficit)	(27,424,241)	36,681,359	9,257,118
Book value per share	(0.58)	0.73	0.15
Shares outstanding	46,969,141	14,510,928	61,480,069

SECTION 17. INTERESTS OF DIRECTORS AND EXECUTIVE OFFICERS IN THE OFFER TO AMEND AND EXERCISE

As of November 13, 2012, there were outstanding Original Warrants to purchase an aggregate of 14,410,928 shares of common stock. The Company's executive officers, directors and control persons, as described below, hold the following Original Warrants and will be entitled to participate in the Offer to Amend and Exercise on the same terms and conditions as the other holders of Original Warrants:

Name	Position with the Company	Number of Original Warrants Held	Percentage of Original Warrants Held
Barry D. Michaels	Chief Financial Officer	10,000	*
Eric Michael David	Chief Strategy Officer	20,000	*
Robert Baltera	Director	28,000	*

* Less than 1%

Except as set forth above, none of the Company's other executive officers, directors or control persons hold Original Warrants.

SECTION 18. LEGAL MATTERS AND REGULATORY APPROVALS

We are not aware of any license or regulatory permit material to our business that might be adversely affected by the Offer to Amend and Exercise and the issuance of the shares of common stock upon the exercise of the Amended Warrants. Our obligations under the Offer to Amend and Exercise are subject to the conditions described in Section 6 "Conditions of the Offer to Amend and Exercise" above.

SECTION 19. MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES

The following is a summary of the material U.S. federal income tax consequences that we believe will be applicable to Original Warrant holders who participate in the Offer to Amend and Exercise. However, we have not requested a ruling from the IRS or any opinion of counsel with regard to the treatment of warrant holders participating in the exchange and there can be no assurance, as discussed below, that the IRS will not take a position inconsistent with our expectations.

This discussion does not address all aspects of federal income taxation that may be relevant to you in light of your particular circumstances, or to those Original Warrant holders who are subject to special rules, such as financial institutions and mutual funds; banks; insurance companies; investment companies; retirement plans; tax-exempt organizations; dealers or traders in securities; any person that holds their Original Warrants as part of a straddle or hedge arrangement; partnerships or other pass-through entities; persons who are not citizens or residents of the United States or who are foreign corporations, foreign partnerships or foreign estates or trusts for U.S. federal income tax purposes or whose functional currency is not the U.S. dollar; or persons who are subject to the alternative minimum tax provisions of the Internal Revenue Code (the "**Code**").

This discussion assumes that Original Warrant holders hold the Original Warrants as capital assets. In addition, the following discussion does not address the tax consequences of the participation in the Offer to Amend and Exercise under foreign, state or local tax laws. You are urged to consult your tax advisors as to the U.S. federal income tax consequences of participating in the Offer to Amend and Exercise and related reporting obligations, as well as the effects of state, local and non-U.S. tax laws and U.S. tax laws other than income tax laws.

Tax treatment of Original Warrant holders participating in the Offer to Amend and Exercise.

Although not free from doubt, the Company intends to take the position that the amendment of your Original Warrants followed by an exercise of the Amended Warrants is treated as an exchange of Original Warrants for

Amended Warrants which constitutes a recapitalization for U.S. federal income tax purposes, followed by the subsequent exercise of the Amended Warrants. Under this treatment, (i) an Original Warrant holder who participates in the Offer to Amend would not recognize any gain or loss as a result of amending the Original Warrants, (ii) such U.S. holder's tax basis in the shares of our common stock received upon exercise of the Amended Warrants would be equal to the U.S. holder's tax basis in the Original Warrants plus the amount of any cash paid to exercise the Amended Warrants, and (iii) the holding period of the common stock would begin on the day after the exercise of the Amended Warrants.

Because of the lack of authority dealing with transactions similar to the Offer to Amend, the U.S. federal income tax consequences of the Offer to Amend are unclear, and alternative characterizations are possible that could require you to recognize gain or loss or may impact your holding period. The Internal Revenue Service has not made a determination, nor has the Company received any opinion of counsel, on the U.S. federal income tax consequences of the Offer to Amend or of a holder's participation in the Offer to Amend. Therefore, we urge you to consult your tax advisor regarding the potential tax consequences of the Offer to Amend to you in your particular circumstances, including the consequences of possible alternative characterizations.

Distributions on Common Stock Received upon Exercise of New Warrants

After you exercise the Amended Warrant, any distributions you receive in respect of our common stock generally will be treated as a dividend, subject to tax as ordinary income, to the extent payable out of our current or accumulated earnings and profits (as determined for U.S. federal income tax purposes), then as a tax-free return of capital to the extent of your tax basis in the shares of our common stock, and thereafter as gain from the sale or exchange of the stock. Dividends received by a non-corporate holder currently qualify for taxation at a reduced 15% rate (subject to increase for tax years beginning after December 31, 2012) if the holder meets certain holding period and other applicable requirements. Dividends received by a corporate holder will be eligible for the dividends-received deduction if the holder meets certain holding period and other applicable requirements.

Sale or Other Taxable Disposition of Common Stock

You will generally recognize gain or loss upon the sale, exchange or other taxable disposition of shares of our common stock equal to the difference between (1) the amount of cash and the fair market value of any property received and (2) your adjusted tax basis in the shares of our common stock. Any gain or loss you recognize generally will be treated as a capital gain or loss. The capital gain or loss will be long-term if your holding period in the common stock is more than one year at the time of sale, exchange or other taxable disposition and will be short-term if your holding period is one year or less. Long-term capital gains of individuals and other non-corporate taxpayers are generally eligible for reduced rates of taxation. The deductibility of capital losses is subject to certain limitations.

Medicare Tax

For taxable years beginning after December 31, 2012, certain holders that are individuals, estates or trusts will be subject to a 3.8% Medicare tax on, among other things, dividends on and capital gains from the sale or other disposition of stock, subject to certain exceptions. You are urged to consult your tax advisors regarding the applicability of the Medicare tax to your income and gains arising from ownership and disposition of our common stock.

Information Reporting and Backup Withholding

Information reporting requirements generally will apply to certain holders with respect to dividends paid on, or, under certain circumstances, the proceeds of a sale, exchange or other disposition of, common stock. Under the Code and applicable Treasury Regulations, a holder of common stock may be subject to backup withholding (currently at a rate of 28%, subject to increase for taxable years beginning after December 31, 2012) with respect

to dividends paid on common stock, or the proceeds of a sale, exchange or disposition of common stock, unless such holder (a) is a corporation or comes within certain other exempt categories and, when required, demonstrates this fact in the manner required, or (b) within a reasonable period of time, provides a correct taxpayer identification number, certifies that it is not subject to backup withholding and otherwise complies with applicable requirements of the backup withholding rules. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules will generally be allowed as a credit against a holder's U.S. federal income tax liability and may entitle such holder to a refund, provided the required information is timely furnished to the IRS. You should consult their tax advisors regarding the application of information reporting and backup withholding rules in their particular situations, the availability of an exemption therefrom, and the procedure for obtaining such an exemption, if applicable.

SECTION 20. ACCOUNTING TREATMENT

Under U.S. generally accepted accounting principles ("GAAP"), the anti-dilution provisions in the Original Warrants causes the Original Warrants to be treated as a derivative liability. As a result, we must record the Original Warrants at their fair value on each balance sheet date and any change in value between reporting periods must be recorded as other income or expense, as the case may be, for the period ending on such reporting date. The fair value of the derivative liabilities associated with the Original Warrants increases as the price of our common stock increases, resulting in other expense in our consolidated statements of operations, and decreases as the price of our common stock decreases, resulting in other income. In other words, the existence of the anti-dilution provision causes our reported net income to decrease when the price of our common stock increases, and vice versa.

If the Original Warrants are amended and exercised pursuant to the Offer to Amend and Exercise, this effect on our derivate liability will no longer occur for future periods for these warrants. In addition, the exercise price paid for the warrants would be reclassified from liabilities to stockholders' equity, which would result in a decrease to the derivative liability account included in our balance sheet and an increase in stockholders' equity.

SECTION 21. FEES AND EXPENSES

The Company has retained Aegis Capital to act as its Warrant Agent for the Offer to Amend and Exercise pursuant to a Warrant Agent Agreement, attached as Exhibit (d)(1) to its Schedule TO. Aegis Capital, in accordance with the terms of the Warrant Agent Agreement, shall use reasonable commercial efforts to contact holders of the Original Warrants by mail, telephone, facsimile, or other electronic means and solicit their participation in the Offer to Amend and Exercise and to exercise their Amended Warrants. Aegis Capital will receive a fee equal to 2% of the aggregate cash exercise price paid by holders of the Original Warrants who participate in the Offer to Amend and Exercise. In addition, the Company has agreed to reimburse Aegis Capital for its reasonable out-of-pocket expenses and attorney's fees, including a $35,000 non-accountable expense allowance. If such expenses and fees exceed $35,000, Aegis Capital must thereafter provide invoices to the Company prior to seeking reimbursement and must obtain the Company's prior approval for any individual expenses in excess of $2,500. The Company has agreed to indemnify Aegis Capital against certain liabilities in connection with the Offer to Amend and Exercise, including certain liabilities under the federal securities laws.

SECTION 22. TRANSFERS

The terms of the Original Warrants provide that a holder may transfer the Original Warrants to a third party if the transfer qualifies for an exemption from the registration requirements of the Securities Act to the reasonable satisfaction of the Company. Any holder of an Original Warrant who desires to transfer an Original Warrant should contact the Company prior to such transfer to ensure that the planned transfer satisfies the transfer restrictions set forth in the Original Warrants.

SECTION 23. ADDITIONAL INFORMATION

The Company has filed with the SEC a Tender Offer Statement on Schedule TO of which this Offer to Amend and Exercise is a part. This Offer to Amend and Exercise does not contain all of the information contained in the Schedule TO and the exhibits to the Schedule TO. We recommend that holders of the Original Warrants review the Schedule TO, including the exhibits, and the Company's other materials that have been filed with the SEC before making a decision on whether to participate in the Offer to Amend and Exercise and to exercise the Amended Warrants.

The Board of Directors of the Company recognizes that the decision to participate in the Offer to Amend and Exercise and to exercise the Amended Warrants is an individual one that should be based on a variety of factors. The holders of the Original Warrants should consult with their respective professional advisors if they have questions about their financial or tax situation. The information about this Offer to Amend and Exercise from the Company is limited to the Offering Materials.

The Company issued the Original Warrants in private placement transactions in reliance on the exemption from registration provided by Rule 506 of Regulation D under the Securities Act of 1933, as amended (the "**Securities Act**"). In connection with such transactions, the holders of the Original Warrants represented that they were "accredited investors." The Company has included with this Offer to Amend and Exercise an exhibit titled "Supplemental Company Information" that contains additional information that holders of Original Warrants, if any, who are no longer an "accredited investors" should consider before making an investment decision.

The Company is subject to the information requirements of the Securities Exchange Act of 1934, as amended, and in accordance therewith files and furnishes reports and other information with the SEC. All reports and other documents the Company has filed with the SEC, including the Schedule TO relating to the Offer to Amend and Exercise, or will file with the SEC in the future, can be accessed electronically on the SEC's website at www.sec.gov.

SECTION 24. INFORMATION REQUESTS

Please direct questions or requests for assistance regarding this Offer to Amend and Exercise, Election to Participate and Exercise Warrant, and Notice of Withdrawal or other materials, in writing, to the Warrant Agent — Aegis Capital Corp., 810 7th Avenue, 18th Floor, New York, NY 10019; Attn: Adam K. Stern, Head of Private Equity Banking, telephone (646) 502-2401.

Please direct requests for additional copies of this Offer to Amend and Exercise, Election to Participate and Exercise Warrant, and Notice of Withdrawal or other materials, in writing, to the Company — Organovo Holdings, Inc., 6275 Nancy Ridge Dr., San Diego, California 92121; Attn: Corporate Secretary.

Sincerely,

/s/ Keith Murphy

Keith Murphy
Chief Executive Officer and President

Organovo Holdings, Inc.
6275 Nancy Ridge Drive
San Diego, California 92121
Phone: (858) 550-9994

EXHIBIT A

Organovo, Inc.
(A development stage company)

Balance Sheets

	December 31, 2011	December 31, 2010
Assets		
Current Assets		
Cash and cash equivalents	**$ 339,607**	**$ 285,308**
Grant receivable	**—**	**59,744**
Inventory	**291,881**	**68,022**
Deferred financing costs	**318,843**	**—**
Prepaid expenses and other current assets	**79,874**	**11,042**
Total current assets	**1,030,205**	**424,116**
Fixed Assets - Net	**278,208**	**295,539**
Other Assets - Net	**100,419**	**40,743**
Total assets	**$ 1,408,832**	**$ 760,398**
Liabilities and Stockholders' Deficit		
Current Liabilities		
Accounts payable	**$ 657,560**	**$ 284,217**
Accrued expenses	**437,837**	**305,580**
Deferred revenue	**152,500**	**106,925**
Related party note payable	**—**	**25,000**
Accrued interest payable	**24,018**	**251,536**
Convertible notes payable, current portion	**703,833**	**200,000**
Total current liabilities	**1,975,748**	**1,173,258**
Warrant liabilities	**1,266,869**	**—**
Convertible notes payable, long-term portion	**—**	**1,887,500**
Total liabilities	**$ 3,242,617**	**$ 3,060,758**
Commitments and contingencies (Note 10)		
Stockholders' Deficit		
Common stock, $0.0001 par value; 75,000,000 shares authorized, 22,445,254 and 14,707,020 shares issued and outstanding at December 31, 2011 and December 31, 2010, respectively	**2,245**	**1,471**
Additional paid-in capital	**4,855,526**	**6,463**
Deficit accumulated during the development stage	**(6,691,556)**	**(2,308,294)**
Total stockholders' deficit	**(1,833,785)**	**(2,300,360)**
Total Liabilities and Stockholders' Deficit	**$ 1,408,832**	**$ 760,398**

The accompanying notes are an integral part of these financial statements.

Organovo, Inc.
(A development stage company)

Statements of Operations

	Year Ended December 31, 2011	Year Ended December 31, 2010	*Period from April 19, 1997 (Inception) through December 31, 2011*
Revenue			
Product	**$ 223,500**	**$ —**	$ 223,500
Collaborations	**688,088**	**75,000**	763,088
Grants	**56,925**	**528,412**	664,112
Total Revenue	**968,513**	**603,412**	1,650,700
Cost of product revenue	**133,607**	**—**	133,607
Selling, general, and administrative expenses	**1,705,171**	**577,914**	2,666,038
Research and development expenses	**1,419,718**	**1,203,716**	3,198,388
Loss from Operations	**(2,289,983)**	**(1,178,218)**	(4,347,333)
Other Income (Expense)			
Interest expense	**(2,066,889)**	**(160,873)**	(2,318,442)
Interest income	**64**	**81**	2,007
Other expense	**(26,454)**	**316**	(27,788)
Total Other Income (Expense)	**(2,093,279)**	**(160,476)**	(2,344,223)
Net Loss	**$ (4,383,262)**	**$ (1,338,694)**	$ (6,691,556)

The accompanying notes are an integral part of these financial statements.

Organovo, Inc.
(A development stage company)

Statements of Stockholders' Deficit
Period from April 19, 2007 (Inception) through December 31, 2011

	Common Stock		Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total
	Shares	Amount			
Balance at inception (April 19, 2007)	**—**	**$ —**	**$ —**	$ —	$ —
Issuance of Common stock	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	—
Net Loss	—	—	—	—	—
Balance at December 31, 2007	**—**	**$ —**	**$ —**	**$ —**	**$ —**
Issuance of Common stock to founders	1,729,532	173	(173)	—	—
Issuance of restricted Common stock	12,627,697	1,263	(1,263)	—	—
Stock-based compensation expense	—	—	1,742	—	1,742
Net Loss	—	—	—	(97,559)	(97,559)
Balance at December 31, 2008	**14,357,229**	**$ 1,436**	**$ 306**	**$ (97,559)**	**$ (95,817)**
Issuance of restricted Common stock	130,422	13	(13)	—	—
Stock-based compensation expense	—	—	2,336	—	2,336
Net Loss	—	—	—	(872,041)	(872,041)
Balance at December 31, 2009	**14,487,651**	**$ 1,449**	**$ 2,629**	**$ (969,600)**	**$ (965,522)**
Issuance of restricted Common stock	219,369	22	(22)	—	—
Stock-based compensation expense	—	—	3,856	—	3,856
Net Loss	—	—	—	(1,338,694)	(1,338,694)
Balance at December 31, 2010	**14,707,020**	**$ 1,471**	**$ 6,463**	**$ (2,308,294)**	**$ (2,300,360)**
Issuance of Common stock through conversion of notes payable	7,676,828	768	3,488,990	—	3,489,758
Issuance of restricted Common stock	61,406	6	(6)	—	—
Warrants issued with convertible notes and upon conversion of notes payable	—	—	1,111,364	—	1,111,364
Beneficial conversion feature of convertible notes payable	—	—	239,700	—	239,700
Stock-based compensation expense	—	—	9,015	—	9,015
Net Loss	—	—	—	(4,383,262)	(4,383,262)
Balance at December 31, 2011	**22,445,254**	**$ 2,245**	**$ 4,855,526**	**$ (6,691,556)**	**$ (1,833,785)**

The accompanying notes are an integral part of these financial statements.

Organovo, Inc.
(A development stage company)

Statements of Cash Flows

	Year Ended December 31, 2011	Year Ended December 31, 2010	*Period from April 19, 2007 (Inception) through December 31, 2011*
Cash Flows From Operating Activities			
Net loss	**$ (4,383,262)**	**$ (1,338,694)**	$ (6,691,556)
Adjustments to reconcile net loss to net cash used in operating activities:			
Amortization of debt discount	**1,187,569**	**—**	1,187,569
Depreciation and amortization	**68,064**	**58,669**	156,328
Amortization of deferred financing costs	**119,451**	**—**	119,451
Warrants issued in connection with exchange agreement	**527,629**	**—**	527,629
Stock-based compensation	**9,015**	**3,856**	16,949
Change in fair value of warrants	**6,569**	**—**	6,569
Increase (decrease) in cash resulting from changes in:			
Grants receivable	**59,744**	**(54,846)**	—
Inventory	**(223,859)**	**(68,022)**	(291,881)
Prepaid expenses and other current assets	**(68,693)**	**(2,409)**	(93,005)
Accounts payable	**373,343**	**230,165**	657,560
Accrued expenses	**132,257**	**83,404**	437,837
Deferred revenue	**45,575**	**106,925**	152,500
Accrued interest payable	**232,240**	**160,856**	483,776
Net cash used in operating activities	**(1,914,358)**	**(820,096)**	(3,330,274)
Cash Flows From Investing Activities			
Purchases of fixed assets	**(45,547)**	**(48,072)**	(426,823)
Purchases of intangible assets	**(65,000)**	**(5,000)**	(95,000)
Net cash used in investing activities	**(110,547)**	**(53,072)**	(521,823)
Cash Flows From Financing Activities			
Proceeds from issuance of convertible notes payable	**2,542,500**	**992,500**	4,630,000
Proceeds from issuance of related party notes payable	**225,000**	**25,000**	250,000
Repayment of related party notes payable	**(250,000)**	**—**	(250,000)
Deferred financing costs	**(438,296)**	**—**	(438,296)
Net cash provided by financing activities	**2,079,204**	**1,017,500**	4,191,704
Net Increase in Cash and Cash Equivalents	**54,299**	**144,332**	339,607
Cash and Cash Equivalents at Beginning of Period	**285,308**	**140,976**	—
Cash and Cash Equivalents at End of Period	**$ 339,607**	**$ 285,308**	$ 339,607

The accompanying notes are an integral part of these financial statements.

Supplemental Disclosures of Cash Flow Information:

Interest	$ —	$ —	$ —
Income Taxes	$ 800	$ 1,600	$ 2,400

Supplemental Disclosure of Noncash Investing and Financing Activities:

During 2008 the Company issued 1,729,532 shares of Common stock to the founders.

During 2011 and 2010 and for the period from April 19, 2007 (Inception) through December 31, 2011, the Company issued 61,406, 219,369 and 13,038,894, respectively, shares of restricted Common stock to certain employees, advisors and consultants of the Company.

During 2011 and for the period from April 19, 2007 (Inception) through December 31, 2011, the Company issued certain convertible notes payable that included warrants. The warrants and the related beneficial conversion feature, valued at $823,435 were classified as equity instruments and recorded as a discount to the carrying value of the related debt.

During 2011 and for the period from April 19, 2007 (Inception) through December 31, 2011, the Company issued warrants, valued at approximately $1,260,300, in connection with certain convertible notes payable. The warrants were recorded as a warrant liability and recorded as a discount to the carrying value related to debt.

During 2011, the Company issued 7,676,828 shares of Common stock to note holders for the conversion of Convertible Notes with a principal balance totaling $3,030,000 and accrued interest totaling $459,758.

1. Summary of Significant Accounting Policies

A summary of the Company's significant accounting policies consistently applied in the preparation of the accompanying financial statements follows.

Nature of operations

Organovo, Inc. ("the Company") was founded in Delaware in April 2007 and is a Delaware Corporation. Activities since the Company's inception through 2011 were devoted primarily to developing a platform technology for the generation of three-dimensional (3D) human tissues that can be employed in drug discovery and development, biological research, and as therapeutic implants for the treatment of damaged or degenerating tissues and organs.

As of December 31, 2011, the Company has devoted substantially all of its efforts to product development, raising capital, and building infrastructure. The Company has not realized significant revenues from its planned principal operations. Accordingly, the Company is considered to be in the development stage.

On February 8, 2012, the Company merged with and into Organovo Acquisition Corp., a wholly-owned subsidiary of Organovo Holdings, Inc., a publicly traded Delaware corporation ("Organovo Holdings"), with the Company surviving the merger as a wholly-owned subsidiary of Organovo Holdings (the "Merger"). As a result of the Merger, Organovo Holdings acquired the business of the Company, and will continue the existing business operations of the Company.

Liquidity

As of December 31, 2011, the Company had an accumulated deficit of approximately $6,691,600. The Company also had negative cash flow from operations of $1,914,400 during the year ended December 31, 2011.

The Company expects to cover it's anticipated 2012 operating expenses through cash on hand including the funds raised during the first quarter of 2012 through the Private Placement of its Securities and funds received through collaborative agreements, and other commercial arrangements.

On February 8, 2012, the Company received gross proceeds of approximately $6,500,000, including $1,500,000 previously received from the sale of convertible notes payable, in a private placement offering in conjunction with the Merger. The convertible notes automatically converted into equity at the time of the Merger. On February 29, 2012 and March 16, 2012, the Company completed two additional closings of its Private Placement Offering and received total gross proceeds of approximately $8,722,100. See Note 12.

While the likelihood of a liquidity crisis is considered remote, should one occur, there are no guarantees that the Company would be able to obtain sufficient cash from outside sources on a timely basis. Management does not believe the situation represents a significant risk to the Company as of the date of these financial statements.

The Company's ability to continue its operations is dependent upon its ability to raise additional capital through equity or debt financing, and to generate capital through collaborative research agreements and other commercial arrangements. There can be no assurance that any additional financing will be available on acceptable terms or available at all. Any equity financing may result in dilution to existing stockholders and any debt financing may include restrictive covenants.

The accompanying financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of these uncertainties.

Use of estimates

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates. Significant estimates used in preparing the financial statements include those assumed in computing the valuation of warrants and conversion features, revenue recognized under the proportional performance model, the valuation of stock-based compensation expense, and the valuation allowance on deferred tax assets.

Cash and cash equivalents

The Company considers all highly liquid investments with original maturities of 90 days or less to be cash equivalents.

Financial instruments

For certain of the Company's financial instruments, including cash and cash equivalents, grants receivable, inventory, prepaid expenses and other assets, accounts payable, accrued expenses, deferred revenue, notes payable to related parties and convertible notes payable, the carrying amounts are generally considered to be representative of their respective fair values because of the short-term nature of those instruments.

Derivative financial instruments

The Company does not use derivative instruments to hedge exposures to cash flow, market or foreign currency risks.

The Company reviews the terms of convertible debt and equity instruments it issues to determine whether there are embedded derivative instruments, including an embedded conversion option that is required to be bifurcated and accounted for separately as a derivative financial instrument. In circumstances where the convertible instrument contains more than one embedded derivative instrument, including the conversion option, that is required to be bifurcated, the bifurcated derivative instruments are accounted for as a single, compound derivative instrument. Also, in connection with the sale of convertible debt and equity instruments, the Company may issue freestanding warrants that may, depending on their terms, be accounted for as derivative instrument liabilities, rather than as equity.

Derivative instruments are initially recorded at fair value and are then revalued at each reporting date with changes in the fair value reported as non-operating income or expense. When the convertible debt or equity instruments contain embedded derivative instruments that are to be bifurcated and accounted for as liabilities, the total proceeds allocated to the convertible host instruments are first allocated to the fair value of all the bifurcated derivative instruments. The remaining proceeds, if any, are then allocated to the convertible instruments themselves, usually resulting in those instruments being recorded at a discount from their face value.

The discount from the face value of the convertible debt, together with the stated interest on the instrument, is amortized over the life of the instrument through periodic charges to interest expense, using the effective interest method.

Grants receivable

Grants receivable represent amounts due under: (i) two federal contracts with the National Heart, Lung, and Blood Institute (NHLBI), a division of the National Institutes of Health (NIH), and (ii) two U.S. Department of Treasury grant awards. The Company considers the grants receivable to be fully collectible, and accordingly no allowance for doubtful amounts has been established. If amounts become uncollectible, they are charged to operations.

Inventory

Inventories are stated at the lower of the cost or market (first-in, first out). Inventory at December 31, 2011, consisted of approximately $235,000 in finished goods and approximately $56,900 in raw materials. Inventory at December 31, 2010 consisted of approximately $40,000 of work in process and approximately $28,000 in raw materials.

The Company provides inventory allowances based on excess or obsolete inventories determined based on anticipated use in the final product. There was no obsolete inventory reserve as of December 31, 2011 or 2010.

Deferred financing costs

As of December 31, 2011, deferred financing costs consisted of approximately $140,000 associated with the Merger transaction and approximately $179,000 associated with the private placement offering that was initiated in the fourth quarter of 2011. The deferred financing costs related to the private placement offering are being amortized over the life of the Convertible Notes. The deferred financing costs associated with the Merger transaction will be recorded to equity as an offset to the proceeds received as of the effective Merger date. See Note 5.

Other assets

As of December 31, 2011, other assets consisted of approximately $13,100 in security deposits and $87,300 in net license fees related to a license obtained from Clemson University for bioprinting employing ink-jet technology, and a license obtained from the University of Missouri for 3D bioprinting. See Note 8.

Fixed assets and depreciation

Property and equipment are carried at cost. Expenditures that extend the life of the asset are capitalized and depreciated. Depreciation and amortization are provided using the straight-line method over the estimated useful lives of the related assets or, in the case of leasehold improvements, over the lesser of the useful life of the related asset or the lease term. The estimated useful life of the fixed assets range between three and ten years.

Impairment of long-lived assets

In accordance with authoritative guidance the Company reviews its long-lived assets, including property and equipment and other assets, for impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be fully recoverable. To determine recoverability of its long-lived assets, the Company evaluates whether future undiscounted net cash flows will be less than the carrying amount of the assets and adjusts the carrying amount of its assets to fair value. Management has determined that no impairment of long-lived assets occurred in the period from inception through December 31, 2011.

Fair value measurement

Financial assets and liabilities are measured at fair value, which is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The following is a fair value hierarchy based on three levels of inputs,

of which the first two are considered observable and the last unobservable, that may be used to measure fair value:

- ☐ Level 1 — Quoted prices in active markets for identical assets or liabilities.
- ☐ Level 2 — Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- ☐ Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

As of December 31, 2011 and 2010, cash and cash equivalents were comprised of cash in checking accounts.

The Company used Level 3 inputs for its valuation methodology for the warrant derivative liabilities. The estimated fair values were determined using a Monte Carlo option pricing model based on various assumptions (see Note 4). The Company's derivative liabilities are adjusted to reflect estimated fair value at each period end, with any decrease or increase in the estimated fair value being recorded in other income or expense accordingly, as adjustments to fair value of derivative liabilities.

At December 31, 2011, the estimated fair values of the liabilities measured on a recurring basis are as follows:

Fair Value Measurements at December 31, 2011

	Balance at December, 31, 2011	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
Warrant derivative liability	$ 1,266,869	—	—	$ 1,266,869

The following table presents the activity for liabilities measured at estimated fair value using unobservable inputs for the year ended December 31, 2011:

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)

	Warrant Derivative Liability
Beginning balance at December 31, 2010	$ —
Issuances	1,260,300
Adjustments to estimated fair value	6,569
Ending balance at December 31, 2011	$ 1,266,869

Revenue recognition

The Company's revenues are derived from the sale of bioprinter related products and services, NIH and U.S. Treasury Department Grants, collaboration agreements, and license agreements.

The Company recognizes revenue when the following criteria have been met: (i) persuasive evidence of an arrangement exists; (ii) services have been rendered or product has been delivered; (iii) price to the customer is fixed and determinable; and (iv) collection of the underlying receivable is reasonably assured.

Billings to customers or payments received from customers are included in deferred revenue on the balance sheet until all revenue recognition criteria are met. As of December 31, 2011 and 2010, the Company had approximately $152,500 and $107,000 in in deferred revenue related to its collaborative research programs.

Product Revenue

The Company recognizes product revenue at the time of shipment to the customer, provided all other revenue recognition criteria have been met. The Company recognizes product revenues upon shipment to distributors, provided that (i) the price is substantially fixed or determinable at the time of sale; (ii) the distributor's obligation to pay the Company is not contingent upon resale of the products; (iii) title and risk of loss passes to the distributor at time of shipment; (iv) the distributor has economic substance apart from that provided by the Company; (v) the Company has no significant obligation to the distributor to bring about resale of the products; and (vi) future returns can be reasonably estimated. For any sales that do not meet all of the above criteria, revenue is deferred until all such criteria have been met.

Research and Development Revenue Under Collaborative Agreements.

The Company's collaboration revenue consists of license and collaboration agreements that contain multiple elements, including non-refundable upfront fees, payments for reimbursement of third-party research costs, payments for ongoing research, payments associated with achieving specific development milestones and royalties based on specified percentages of net product sales, if any. The Company considers a variety of factors in determining the appropriate method of revenue recognition under these arrangements, such as whether the elements are separable, whether there are determinable fair values and whether there is a unique earnings process associated with each element of a contract.

The Company recognizes revenue from research funding under collaboration agreements when earned on a "proportional performance" basis as research hours are incurred. The Company performs services as specified in each respective agreement on a best-efforts basis, and is reimbursed based on labor hours incurred on each contract. The Company initially defers revenue for any amounts billed or payments received in advance of the services being performed and recognizes revenue pursuant to the related pattern of performance, based on total labor hours incurred relative to total labor hours estimated under the contract.

In December 2010, the Company entered into a 12 month research contract agreement with a third party, whereby the Company was engaged to perform research and development services on a fixed-fee basis for approximately $600,000. Based on proportional performance criteria, the Company recognized approximately $450,000 in revenue related to the contract during 2011, and expects to recognize the remaining $150,000 in revenue during 2012.

In October 2011, the Company entered into a research contract agreement with a third party, whereby the Company will perform research and development services on a fixed-fee basis for $1,365,000. The agreement includes an initial payment to the Company of approximately $239,000, with remaining payments expected to occur over a 21-month period. At December 31, 2011, the Company recorded approximately $239,000 in revenue related to the research contract in recognition of the proportional performance achieved by the Company during the fourth quarter of 2011.

Revenue Arrangements with Multiple Deliverables

The Company occasionally enters into revenue arrangements that contain multiple deliverables. Judgment is required to properly identify the accounting units of the multiple deliverable transactions and to determine the manner in which revenue should be allocated among the accounting units. Moreover, judgment is used in interpreting the commercial terms and determining when all criteria of revenue recognition have been met for each deliverable in order for revenue recognition to occur in the appropriate accounting period. For multiple deliverable agreements, consideration is allocated at the inception of the agreement to all deliverables based on their relative selling price. The relative selling price for each deliverable is determined using VSOE of selling price or third-party evidence of selling price if VSOE does not exist. If neither VSOE nor third-party evidence of selling price exists, the Company uses its best estimate of the selling price for the deliverable.

The Company recognizes revenue for delivered elements only when it determines there are no uncertainties regarding customer acceptance. While changes in the allocation of the arrangement consideration between the units of accounting will not affect the amount of total revenue recognized for a particular sales arrangement, any material changes in these allocations could impact the timing of revenue recognition, which could affect the Company’s results of operations.

The Company expects to periodically receive license fees for non-exclusive research licensing associated with funded research projects. License fees under these arrangements are recognized over the term of the contract or development period as it has been determined that such licenses do not have stand-alone value.

NIH and U.S. Treasury Grant Revenues

During 2010, the U.S. Treasury awarded the Company two one-time grants totaling approximately $397,300 for investments in qualifying therapeutic discovery projects under section 48D of the Internal Revenue Code. The grants cover reimbursement for qualifying expenses incurred by the Company in 2010 and 2009. The proceeds from these grants are classified in “Revenues – Grants” in the 2010 statement of operations.

During 2010 and 2009, the NHLBI, a division of the NIH, awarded the Company two research grants totaling approximately $267,600. Revenues from the NIH grants are based upon internal and subcontractor costs incurred that are specifically covered by the grant, and where applicable, an additional facilities and administrative rate that provides funding for overhead expenses. These revenues are recognized when expenses have been incurred by subcontractors and as the Company incurs internal expenses that are related to the grant. Revenue recognized under these grants for the years ended December 31, 2011 and 2010 was approximately $56,900 and $131,100, respectively.

Stock-based compensation

The Company accounts for stock-based compensation in accordance with Financial Accounting Standards Board's ASC Topic 718, *Compensation — Stock Compensation*, which establishes accounting for equity instruments exchanged for employee services. Under such provisions, stock-based compensation cost is measured at the grant date, based on the calculated fair value of the award, and is recognized as an expense, under the straight-line method, over the employee's requisite service period (generally the vesting period of the equity grant).

The Company accounts for equity instruments, including restricted stock or stock options, issued to non-employees in accordance with authoritative guidance for equity based payments to non-employees. Stock options issued to non-employees are accounted for at their estimated fair value determined using the Black-Scholes option-pricing model. The fair value of options granted to non-employees is re-measured as they vest, and the resulting increase in value, if any, is recognized as expense during the period the related services are rendered. Restricted stock issued to non-employees is accounted for at their estimated fair value as they vest.

Research and development

Research and development expenses, including direct and allocated expenses, consist of independent research and development costs, as well as costs associated with sponsored research and development. Reseach and development costs are expensed as incurred.

Income taxes

Deferred income taxes are recognized for the tax consequences in future years for differences between the tax basis of assets and liabilities and their financial reporting amounts at each year end based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. Income tax expense is the combination of the tax payable for the year and the change during the year in deferred tax assets and liabilities.

Comprehensive income (loss)

Comprehensive income (loss) is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. The Company is required to record all components of comprehensive income (loss) in the financial statements in the period in which they are recognized. Net income (loss) and other comprehensive income (loss), including unrealized gains and losses on investments, are reported, net of their related tax effect, to arrive at Comprehensive income (loss). For the years ended December 31, 2011 and 2010, and for the period April 19, 2007 (inception) through December 31, 2011, the comprehensive loss was equal to the net loss.

New accounting standards

In May 2011, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2011-04, *"Fair Value Measurement"* to amend the accounting and disclosure requirements on fair value measurements. This ASU limits the highest-and-best-use measure to nonfinancial assets, permits certain financial assets and liabilities with offsetting positions in market or counterparty credit risks to be measured at a net basis, and provides guidance on the applicability of premiums and discounts. Additionally, this update expands the disclosure on Level 3 inputs by requiring quantitative disclosure of the unobservable inputs and assumptions, as well as description of the valuation processes and the sensitivity of the fair value to changes in unobservable inputs. ASU No. 2011-04 is to be applied prospectively and is effective during interim and annual periods beginning after December 15, 2011. The Company does not expect the adoption of this update to have a material effect on its financial statements.

In June 2011, FASB issued ASU No. 2011-05, *"Presentation of Comprehensive Income."* This ASU presents an entity with the option to present the total of comprehensive income, the components of net income, and the component of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. In both choices, an entity is required to present each component of other comprehensive income along with a total for other comprehensive income, and a total amount for comprehensive income. This update eliminates the option to present the components of other comprehensive income as part of the statement of changes in stockholders' equity/deficit. The amendments in this update do not change the items that must be reported in other comprehensive income or when an item of other Comprehensive income must be reclassified to net income. ASU No. 2011-05 should be applied retrospectively and is effective for fiscal years, and interim periods within those years, beginning after December 15, 2011. As ASU No. 2011-05 relates only to the presentation of Comprehensive income, the Company does not expect the adoption of this update to have a material effect on its financial statements.

2. Fixed Assets Fixed assets consisted of the following:

December 31,	**2011**	2010
Laboratory equipment	**$ 345,319**	$309,057
Leasehold improvements	**34,198**	34,198
Computer software and equipment	**28,185**	28,185
Furniture and fixtures	**19,123**	9,836
	426,825	381,276
Less accumulated depreciation and amortization	**(148,617)**	(85,737)
	$ 278,208	$295,539

Depreciation and amortization expense for the years ended December 31, 2011 and 2010 was approximately $62,900 and $57,100, respectively. Depreciation and amortization expense was approximately $148,600 for the period from April 19, 2007 (inception) through December 31, 2011.

3. Accrued Expenses Accrued expenses consisted of the following:

December 31,	**2011**	2010
Accrued compensation	**$ 317,097**	$ 129,234
Other accrued expenses	**91,884**	116,424
Deferred rent	**28,856**	59,922
	$ 437,837	$ 305,580

4. Derivative Liability

As discussed in Note 5, the Company issued Convertible Notes in 2011 that provided for the issuance of five-year warrants to purchase the Company's Common stock. The exercise price of the warrants is protected against down-round financing throughout the term of the warrant under certain conditions.

The protective provisions will be triggered if, prior to the expiration date of the warrants, the Company issues additional shares of common stock without consideration or for a consideration per share less than the exercise price of the warrants in effect immediately prior to such issue. In the event such an issuance occurs, the exercise price of the warrants will be reduced to a price (calculated to the nearest cent) determined by multiplying the exercise price by a fraction, (A) the numerator of which is (1) the number of shares of common stock outstanding immediately prior to such issue plus (2) the number of shares of common stock which the aggregate consideration received or to be received by the Company for the total number of additional shares of common stock so issued would purchase at the exercise price; and (B) the denominator of which is the number of shares of common stock outstanding immediately prior to such issue plus the number of such additional shares of common stock so issued.

For purposes of this calculation, (i) all shares of common stock issuable upon conversion or exchange of convertible securities outstanding immediately prior to such issue shall be deemed to be outstanding, and (ii) the number of shares of common stock deemed issuable upon conversion or exchange of such outstanding convertible securities shall be determined without giving effect to any adjustments to the conversion or exchange price or conversion or exchange rate of such convertible securities resulting from the issuance of additional shares of common stock that is the subject of this calculation.

For purposes of the foregoing calculations, the term "additional shares of common stock" means all shares of common stock issued by the Company after the issuance of the warrants (including any shares of common stock issuable upon conversion or exchange of any convertible securities or upon exercise of any option or warrant, on an as-converted basis), other than: (i) shares of common stock (and/or warrants for any class of equity securities of the Company) issued or issuable upon conversion or exchange of any convertible securities or exercise of any options or warrants outstanding on the date of issuance of the warrants; (ii) shares of common stock issued or issuable by reason of a dividend, stock split, split-up or other distribution on shares of common stock, including such events pursuant to a reorganization, reclassification, consolidation, merger or sale; (iii) shares of common stock (or options with respect thereto) issued or issuable to employees or directors of, or consultants to, the Company or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Company; (iv) any securities issued or issuable by the Company pursuant to (A) the Securities Purchase Agreement pursuant to which the investors purchased the convertible promissory notes and the warrants, (B) the Selling Agreement with the Spencer Trask Ventures, Inc., the selling agent in the offering, (C) the reverse triangular merger of the Company into a publicly-held company, or (D) any private placement offering that closes (including subsequent closings) as part of the reverse triangular merger of the Company into a publicly-held company; and (v) securities issued pursuant to acquisitions or strategic transactions approved by a majority of disinterested directors of the Company, provided that any such issuance may only be to a person which is, itself or through its subsidiaries, an operating company in a business synergistic with the

business of the Company and in which the Company receives benefits in addition to the investment of funds, and may not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities.

Upon each adjustment of the exercise price pursuant to the provisions stated above, the number of shares issuable upon exercise of the warrants shall be adjusted by multiplying a number equal to the exercise price in effect immediately prior to such adjustment by the number of shares issuable upon exercise of the warrants immediately prior to such adjustment and dividing the product so obtained by the adjusted exercise price.

Pursuant to ASC 815-15 and ASC 815-40, the fair value of the warrants of $1,260,300 was recorded as a derivative liability on the issuance date.

The fair value of the warrants was estimated at the issuance date and revalued at December 31, 2011, using a Monte Carlo simulation. At December 31, 2011, the Company has recorded a derivative liability of approximately $1,266,900. The change in fair value of the derivative liability of approximately $6,600 from the date of issuance to December 31, 2011 is included in other expense in the 2011 statement of operations.

5. Convertible Notes Payable

Convertible notes

From February 9, 2008 through December 31, 2011 the Company raised an aggregate of $2,390,000 in funds through loans consisting of convertible notes (“Convertible Notes”) to certain shareholders, management, vendors, and investors. The notes bore interest at rates ranging from 8% to 10% per annum and had maturity dates ranging from 2011 to 2018. The Convertible Notes were unsecured and subordinated to certain senior indebtedness of the Company, and for all Convertible Notes the principal plus accrued interest was convertible into the Company’s Common stock. During October 2011 the Convertible Notes and accrued interest converted into the Company’s Common stock, as discussed below.

Local Bridge

During July and August 2011, $740,000 of Convertible Notes bearing interest at 20% per annum, and warrants to purchase shares of common stock were issued to investors. The Convertible Notes were due at the earlier of 1) one year from the issuance date or 2) one week after the consummation of the Merger (as discussed in Note 12). The number of warrants to be issued was equal to the note principal divided by the exercise price. The exercise price is the per share or per unit fair market value received in the Merger. The notes were convertible at a price per share equal to seventy-five percent (75%) of the per share fair market value of the total consideration received for a share of a public company’s Common stock to be determined to be identified upon consummation of a merger.

The Company determined that the beneficial conversion feature and the warrants did not represent embedded derivative instruments. Additionally, the Company did not record the discount for the beneficial conversion feature due to the contingencies surrounding conversion. The beneficial conversion feature was to be recorded when the contingencies are resolved. In accordance with ASC 470-20, Debt with Conversion and Other Options, the Company recorded a discount of approximately $583,700 for the warrants. The discount is being amortized to interest expense over the term of the Convertible Notes using the effective interest method.

The Company calculated the fair value of the warrants using the Black-Scholes Model using a volatility of 109.84%, an interest rate of 1.12% and a dividend yield of zero.

Certain of these Convertible Notes and accrued interest were converted into the Company's Common stock in October 2011, as discussed below. Upon conversion the Company recognized the unamortized debt discount related to these notes to interest expense. The Company recognized approximately $583,700 of interest expense for the amortization of the note discount during the year ended December 31, 2011.

Exchange agreement and release

In October 2011, the Company's Board of Directors and shareholders approved an Exchange Agreement and Release whereby the note holders could exchange their Convertible Notes and accrued interest for shares of the Company's Common stock and warrants to purchase the Company's Common stock. A total of $3,030,000 of principal and approximately $459,800 of accrued interest converted, at prices ranging from $0.27 to $0.75, into 7,676,828 shares of the Company's Common stock, plus five-year warrants to purchase 1,309,750 Common shares at an exercise price of $1.00 per share. The Company calculated the fair value of the warrants using the Black-Scholes Model using a volatility of 110.13%, an interest rate of 1.11% and a dividend yield of zero. For the holders that elected to participate, the Exchange Agreement and Release resulted in the cancellation of the Convertible Notes and release from the note holders for any claims related to the Convertible Notes.

The Company determined that the warrants issued in connection with the Exchange Agreement and Release did not represent embedded derivative instruments. The warrants, valued at approximately $527,600, were classified as equity instruments and recorded as interest expense on the date of issuance.

At December 31, 2011, a $100,000 Convertible Note remained outstanding, and was paid in cash at the close of the Merger. See Note 12.

Private placement

On September 18, 2011, the Company's Board of Directors authorized a private placement offering of up to 30 Units (the "Units") of its securities at a price of $50,000 per Unit for an aggregate purchase price of $1,500,000. Each Unit consists of a convertible note in the principal amount of $50,000 accruing simple interest at the rate of 6% per annum, plus five-year warrants to purchase 50,000 shares of the next Qualified Round of Equity Securities, at an exercise price of $1.00 per share. The principal plus accrued interest was convertible into the common stock of a public shell company to be identified upon consummation of a merger transaction.

During October and November 2011, $1,500,000 of Convertible Notes bearing interest at 6% per annum with a maturity date of March 30, 2012, and five-year warrants to purchase 1,500,000 shares of the Company's Common stock were issued to investors under the private placement. The Convertible Notes were outstanding at December 31, 2011, and were converted into common stock in connection with the Merger. See Note 12. The warrants are exercisable at $1.00 per share, expire in five years, and contain down-round price protection.

The Company determined that the warrants represent a derivative instrument due to the down-round price protection, and accordingly, the Company recorded a derivative liability

related to the warrants of approximately $1,260,300. See Note 4. Additionally, the Company recorded the discount for the beneficial conversion feature of $239,700. The debt discount associated with the warrants and beneficial conversion feature are being amortized to interest expense over the life of the Convertible Notes. The Company recorded approximately $603,800 of interest expense for the amortization of the debt discount during the year ended December 31, 2011.

As consideration for locating investors to participate in this financing, the placement agent earned a cash payment of $195,000. Additionally, upon closing of a Merger transaction, the placement agent will earn five-year warrants to purchase 610,155 shares of the Company's Common stock at $1.00 per share. These warrants contain down round protection and will be classified as derivative liabilities upon issuance.

As of December 31, 2011 and 2010, the outstanding principal balances on the Convertible Notes were $1,600,000 and $2,087,500, respectively. As of December 31, 2011 and 2010, the accrued interest balances on the outstanding Convertible Notes were approximately $24,000 and $252,000, respectively. As of December 31, 2011 and 2010, unamortized discounts relating to the outstanding principal balances were approximately $896,200 and $0, and the $896,200 is expected to be recognized as interest expense in 2012.

Interest expense, including amortization of the note discounts, for the years ended December 31, 2011 and 2010 was approximately $2,066,900 and $161,000, respectively. Interest expense, including amortization of the note discounts, for the period from April 19, 2007 (inception) through December 31, 2011 was approximately $2,318,000.

6. Stockholders' Equity

Common stock

In September 2011, the Company amended its Certificate of Incorporation to increase its authorized Common stock from 100,000 shares to 75,000,000 shares. Each share of the Company's Common stock is entitled to one vote and all shares rank equally as to voting and other matters.

On September 18, 2011, the Company approved a 362.282-for-1 forward stock split. The Company did not change the par value of the shares. The stockholders' equity section of the accompanying financial statements and all share numbers disclosed throughout the financial statements have been retroactively adjusted to give effect to the forward stock split.

The Company issued 1,729,532 shares of Common stock to the founders in February 2008.

In October 2011, the Company issued 7,676,828 shares of Common stock to note holders for the conversion of Convertible Notes with a principal balance totaling $3,030,000 and accrued interest totaling approximately $459,800. See Note 5.

Restricted stock awards

In February 2008, four founders, including the Chief Executive Officer ("CEO") and three directors of the Company received 11,779,960 shares of restricted Common stock, 25% vesting after the first year and the remaining 75% vesting in equal quarterly portions over the following three years.

On May 8, 2008, the Board of Directors of the Company approved the 2008 Equity Incentive Plan (the "2008 Plan"). The 2008 Plan authorized the issuance of up to

1,521,584 Common shares for awards of incentive stock options, non-statutory stock options, restricted stock awards, restricted stock unit awards, and stock appreciation rights. The 2008 Plan terminates on July 1, 2018.

From 2008 through 2011, the Company issued a total of 1,258,934 shares of restricted Common stock to various employees, advisors, and consultants of the Company. 1,086,662 of those shares were issued under the 2008 Plan and the remaining 172,272 shares were issued outside the plan.

A summary of the Company's restricted stock award activity is as follows:

	Number of Shares
Unvested at December 31, 2007	—
Granted	12,627,697
Vested	(65,211)
Canceled / forfeited	—
Unvested at December 31, 2008	12,562,486
Granted	130,422
Vested	(5,373,004)
Canceled / forfeited	—
Unvested at December 31, 2009	7,319,904
Granted	219,369
Vested	(3,256,191)
Canceled / forfeited	—
Unvested at December 31, 2010	**4,283,082**
Granted	**61,406**
Vested	**(3,233,193)**
Canceled / forfeited	—
Unvested at December 31, 2011	**1,111,295**

The fair value of each restricted Common stock award is recognized as stock-based expense over the vesting term of the award. The Company recorded restricted stock-based compensation expense in operating expenses for employees and non-employees of approximately $3,300 and $3,900 for the years ended December 31, 2011 and 2010, respectively. The Company recorded stock-based compensation expense of approximately $16,900 for the period from April 19, 2007 (inception) through December 31, 2011.

As of December 31, 2011 total unrecognized stock-based compensation expense was approximately $1,800, which will be recognized over a weighted average period of less than one year.

Stock options

Under the 2008 Plan, on October 12, 2011 the Company granted an officer of the Company incentive stock options to purchase 896,256 shares of the Company's Common stock at an exercise price of $0.08 per share, vesting over a four-year period commencing in May, 2011. After this grant, no additional issuances are authorized under the 2008 plan.

The following table summarizes stock option activity as of December 31, 2011, and the changes for the year then ended:

	Options Outstanding	Weighted-Average Exercise Price	Aggregate Intrinsic Value
Outstanding at December 31, 2010	—	—	—
Options Granted	896,256	$ 0.08	—
Options Canceled	—	—	—
Options Exercised	—	—	—
Outstanding at December 31, 2011	896,256	$ 0.08	$ —
Vested and Exercisable at December 31, 2011	—	$ 0.08	$ —

The Company uses the Black-Scholes valuation model to calculate the fair value of stock options. The fair value of employee stock options was estimated at the grant date using the following assumptions:

	December 31, 2011
Weighted-average grant date fair value	$ 0.06
Dividend yield	—
Volatility	111%
Risk-free interest rate	1.07%
Expected life of options	5.0 years

The assumed dividend yield was based on the Company's expectation of not paying dividends in the foreseeable future. Due to the Company's limited historical data, the estimated volatility incorporates the historical and implied volatility of comparable companies whose share prices are publicly available. The risk-free interest rate assumption was based on the U.S. Treasury's rates for U.S. Treasury zero-coupon bonds with maturities similar to those of the expected term of the award being valued. The weighted average expected life of options was estimated using the average of the contractual term and the weighted average vesting term of the options.

The total employee stock-based compensation recorded as operating expenses was approximately $5,800 for the year ended December 31, 2011 and for the period from April 19, 2007 (inception) through December 31, 2011.

The total unrecognized compensation cost related to unvested stock option grants as of December 31, 2011 was approximately $48,000, and the weighted average period over which these grants are expected to vest is 4 years.

Warrants

During 2011, the Company issued warrants to purchase 2,909,750 shares of its Common stock. These warrants are immediately exercisable at $1.00 per share, and have remaining terms of approximately 4.8 years. None of the warrants were exercised as of December 31, 2011. See Notes 4 and 5.

Common stock reserved for future issuance

Common stock reserved for future issuance consisted of the following at December 31, 2011:

Common stock warrants outstanding	2,909,750
Common stock options outstanding under the 2008 Plan	896,256
Common stock warrants held for convertible debt issuance	1,500,000
Authorized for future grant or issuance under the 2008 Plan	—
Total	5,306,606

7. Income Taxes

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's net deferred tax assets are as follows as of December 31, 2011 and 2010:

December 31,	2011	2010
Deferred tax asset:		
Net operating loss carryforwards	$ 1,620,000	$ 784,000
Research & Development Credits	190,000	99,000
Depreciation and amortization	8,000	(2,000)
Accrued expenses and reserves	107,000	36,000
Total deferred tax assets	1,925,000	917,000
Valuation Allowance	(1,925,000)	(917,000)
	$ —	$ —

A full valuation allowance has been established to offset the deferred tax assets as management cannot conclude that realization of such assets is more likely than not. The valuation allowance increased by approximately $1,008,000 in 2011.

At December 31, 2011, the Company had federal and state net operating loss carryforwards of approximately $4,067,000 and $4,063,000, respectively. The federal and state net operating loss carryforwards will begin expiring in 2029, unless previously utilized.

At December 31, 2011, the Company had federal and state research tax credit carryforwards of approximately $114,500 and $114,800, respectively. The federal research tax credit carryforwards begin expiring in 2029. The state research tax credit carryforwards do not expire.

The Company applies the authoritative guidance for uncertainty in income taxes pursuant to ASC 740-10. The adoption of this guidance did not have a material impact on the Company's financial statements. The Company did not record any accruals for income tax accounting uncertainties for the years ended December 31, 2011 or 2010.

The Company's policy is to recognize interest and penalties that would be assessed in relation to the settlement value of unrecognized tax benefits as a component of income tax expense. The Company did not accrue either interest or penalties as of December 31, 2011 or 2010.

The Company is subject to taxation in the United States, and the state of California. As of December 31, 2011, the Company's tax years from inception are subject to examination by the tax authorities. The Company is not currently under examination by the United States federal or state jurisdictions.

8. Licensing Agreements and Research Contracts

University of Missouri

On March 24, 2009 the Company entered into a license agreement with the Curators of the University of Missouri to in-license certain technology and intellectual property relating to self-assembling cell aggregates and to intermediate cellular units. The Company received the exclusive worldwide rights to commercialize products comprising this technology for all fields of use. The Company paid to the University of Missouri a nonrefundable license fee of $25,000 and has committed to reimburse the University of Missouri for certain prior and future patent costs. Each year the Company is required to pay the University of Missouri royalties ranging from 1% to 3% of net sales depending on the level of net sales achieved by the Company each year. A minimum annual royalty of $25,000 is due beginning 2 years after the calendar year of the first commercial sale and is credited to sales royalties. The license agreement terminates upon expiration of the patents licensed and is subject to certain conditions as defined in the license agreement, which are expected to expire after 2029. The $25,000 license fee is included in Other Assets in the accompanying balance sheets and is being amortized over the life of the related patent.

On March 12, 2010, the Company entered into a license agreement with the Curators of the University of Missouri to in-license certain technology and intellectual property relating to engineered biological nerve grafts. The Company received the exclusive worldwide rights to commercialize products comprising this technology for all fields of use. The Company paid to University of Missouri a nonrefundable license fee of $5,000 and has committed to reimburse the University of Missouri for certain prior and future patent costs. In 2011 and 2010, the Company paid the University of Missouri $23,789 and $40,323, respectively, for prior patent costs relating to the license agreements with the University of Missouri. Each year the Company is required to pay the University of Missouri royalties ranging from 1% to 3% of net sales depending on the level of net sales achieved by the Company each year. A minimum annual royalty of $5,000 is due beginning 2 years after the calendar year of the first commercial sale and is credited to sales royalties. An additional royalty of $12,500 is due if there are no net sales within five years from the effective date of the license. The license agreement terminates upon expiration of the patents licensed and is subject to certain conditions as defined in the license agreement. The $5,000 license fee is included in Other Assets and is being amortized over the life of the related patent.

On May 2, 2011, the Company entered into a license agreement with Clemson University Research Foundation to in-license certain technology and intellectual property relating to ink-jet printing of viable cells. The Company received the exclusive worldwide rights to commercialize products comprising this technology for all fields of use. The Company agreed to pay Clemson University a nonrefundable license fee of $32,500, payable in four quarterly

payments with the last payment due in April 2012. The Company has also committed to reimburse Clemson University for certain prior and future patent costs. In 2011 the Company paid Clemson University $23,793 for prior patent costs. Each year the Company is required to pay the University royalties ranging from 1.5% to 3% of net sales depending on the level of net sales reached each year and minimum annual fees ranging from $20,000 to $40,000. Specific terms of the royalty and license agreements are confidential. The license agreement terminates upon expiration of the patents licensed, which is expected to expire in May 2024, and is subject to certain conditions as defined in the license agreement.

Clemson University 2011 licensing agreement

On May 2, 2011 the Company entered into a license agreement with Clemson University Research Foundation to in-license certain technology and intellectual property relating to ink-jet printing of viable cells. The Company received the exclusive worldwide rights to commercialize products comprising this technology for all fields of use. The Company agreed to pay Clemson University a nonrefundable license fee in cash and in the form of a convertible promissory note. The Company has also committed to reimburse Clemson University for certain prior and future patent costs. Each year the Company is required to pay the University royalties. Specific terms of the royalty and license agreements are confidential. The license agreement terminates upon expiration of the patents licensed and is subject to certain conditions as defined in the license agreement.

No royalty fees have been incurred under the license agreements as of December 31, 2011.

Capitalized license fees consisted of the following:

December 31,	**2011**	2010
License fees	**$95,000**	$30,000
Less accumulated amortization	**(7,700)**	(2,500)
License fees, net	**$87,300**	$27,500

Amortization expense of licenses was approximately $5,200, $1,500 and 7,700 for 2011, 2010 and for the period from April 19, 2007 (inception) through December 31, 2011, respectively. At December 31, 2011, the weighted average remaining amortization period for all licenses was approximately 13 years. The annual amortization expense of licenses for the next five years is estimated to be approximately $6,000 per year.

9. Related Party Transactions

Note payable - related party

In October 2010, the CEO loaned the Company $25,000 and was issued an interest-free note payable for the amount of the loan. At various points in 2011, the CEO made interest-free, short-term loans to the Company which in the aggregate totaled $225,000. All the notes were repaid in full during 2011. Imputed interest on the loans was minimal.

There was approximately $0 and $94,400 in amounts due to the CEO recorded in accounts payable as of December 31, 2011 and 2010, respectively.

10. Commitments and Contingencies

Operating leases

The Company leases office and laboratory space under non-cancelable operating leases. The Company records rent expense on a straight-line basis over the life of the lease and records the excess of expense over the amounts paid as deferred rent.

Rent expense was approximately $145,200 and $107,500 for the years ended December 31, 2011 and 2010, respectively. Rent expense was approximately $324,600 for the period from April 19, 2007 (inception) through December 31, 2011.

Future minimum rental payments required under operating leases that have initial or remaining non-cancelable lease terms in excess of one year are as follows:

Year Ending December 31,	
2012	$ 125,095
Thereafter	—
Total	$ 125,095

11. Concentrations

Credit risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of temporary cash investments. The Company maintains cash balances at various financial institutions primarily located in San Diego. Accounts at these institutions are secured by the Federal Deposit Insurance Corporation. At times, balances may exceed federally insured limits. The Company has not experienced losses in such accounts, and management believes that the Company is not exposed to any significant credit risk with respect to its cash and cash equivalents.

12. Subsequent Events

Merger transaction

On February 8, 2012, the Company merged with and into Organovo Acquisition Corp. (“Acquisition Corp.”), a wholly-owned subsidiary of Organovo Holdings, Inc., a publicly traded Delaware corporation (“Organovo Holdings”), with the Company surviving the merger as a wholly-owned subsidiary of Organovo Holdings (the “Merger”). As a result of the Merger, Organovo Holdings acquired the business of the Company, and will continue the existing business operations of the Company.

Simultaneously with the Merger, on February 8, 2012 (the “Closing Date”), all of the issued and outstanding shares of the Company’s common stock converted, on a 1 for 1 basis, into shares of Organovo Holding’s common stock, par value $0.001 per share (“Common Stock”). Also on the Closing Date, all of the issued and outstanding options to purchase shares of the Company’s common stock and other outstanding warrants to purchase the Company’s common stock, and all of the issued and outstanding Bridge Warrants (as defined below) to purchase shares of the Company’s Common Stock, converted, respectively, into options (the “New Options”), warrants (the “New Warrants”) and new

bridge warrants (the "New Bridge Warrants") to purchase shares of Organovo Holding's Common Stock. The New Bridge Warrants, the New Warrants and the New Bridge Options were converted on a 1 for 1 basis. The New Options will be administered under the Company's 2008 Equity Incentive Plan (the "2008 Plan"), which Organovo Holding's assumed and adopted on the Closing Date in connection with the Merger.

Specifically, on the Closing Date, (i) 22,445,254 shares of Common Stock were issued to the Company's former stockholders; (ii) New Options to purchase 896,256 shares of Common Stock granted under the 2008 Plan were issued to the Company's optionees pursuant to the assumption of the 2008 Plan by Organovo Holdings; (iii) New Warrants to purchase 1,309,750 shares of Organovo Holdings' Common Stock at $1.00 per share were issued to holders of the Company's warrants; and (iv) New Bridge Warrants to purchase 1,500,000 shares of Organovo Holdings' Common Stock at $1.00 per share were issued to the Company's Bridge Investors.

In connection with three separate closings of a private placement transaction completed in connection with the Merger (the "Offering"), the Company received gross proceeds of approximately $6,500,000 (including $1,500,000 previously received from the conversion of outstanding convertible notes payable), $1,800,000 and $6,900,000 on February 8, 2012, February 29, 2012 and March 16, 2012, respectively.

For all three closings of the Offering, the Company raised total gross proceeds of $15,247,959 and total net proceeds of $11,593,065.91 (or $12,811,897.11, including the conversion of the Bridge Notes referred to above). The Company issued 15,247,987 shares of Organovo Holdings' Common Stock and warrants to purchase 16,747,987 shares of Organovo Holdings' Common Stock (including warrants to purchase 1,500,000 shares to former holders of the Bridge Notes) exercisable at $1.00 to investors in the Offering. The placement agent and its selected dealers were paid total cash commissions of $1,372,260 and the Placement Agent was paid an expense allowance of $411,678 and was issued Placement Agent warrants to purchase 6,099,195 shares of Organovo Holdings' Common Stock at an exercise price of $1.00 per share (including warrants to purchase 610,155 shares issued in connection with issuance of the Bridge Notes and subsequently exchanged for new warrants in the Merger).

The Merger will be treated as a recapitalization of the Company for financial accounting.

On February 8, 2012, the Company merged with and into Organovo Acquisition Corp. ("Acquisition Corp."), a wholly-owned subsidiary of Organovo Holdings, Inc., a publicly traded Delaware corporation ("Organovo Holdings"), with the Company surviving the merger as a wholly-owned subsidiary of Organovo Holdings (the "Merger"). As a result of the Merger, Organovo Holdings acquired the business of the Company, and will continue the existing business operations of the Company.

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shares of the Company's common stock and other outstanding warrants to purchase the Company's common stock, and all of the issued and outstanding Bridge Warrants (as defined below) to purchase shares of the Company's Common Stock, converted, respectively, into options (the "New Options"), warrants (the "New Warrants") and new bridge warrants (the "New Bridge Warrants") to purchase shares of Organovo Holding's Common Stock. The New Bridge Warrants, the New Warrants and the New Bridge Options were converted on a 1 for 1 basis. The New Options will be administered under the Company's 2008 Equity Incentive Plan (the "2008 Plan"), which Organovo Holding's assumed and adopted on the Closing Date in connection with the Merger.

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The Merger will be treated as a recapitalization of the Company for financial accounting purposes. The historical financial statements of Organovo Holdings before the Merger will be replaced with the historical financial statements of the Company before the Merger in all future filings with the Securities and Exchange Commission (the "SEC").

Before the Merger, Organovo Holdings' board of directors and stockholders adopted the 2012 Equity Incentive Plan (the "2012 Plan"). The 2012 Plan provides for the issuance of 6,553,986 shares of Organovo Holdings' Common Stock to executive officers, directors, advisory board members and employees. In addition, Organovo Holdings assumed and

adopted the Company's 2008 Plan, and as described above option holders under that plan were granted New Options to purchase Common Stock. No further options will be granted under the 2008 Plan. The parties have taken all actions necessary to ensure that the Merger is treated as a tax free exchange under Section 368(a) of the Internal Revenue Code of 1986, as amended.

New facilities lease

The Company entered into a new facilities lease at 6275 Nancy Ridge Drive, San Diego, CA 92121. The lease was signed on February 27, 2012 with target occupancy of July 15, 2012. The base rent under the lease is approximately $38,800 per month with 3% annual escalators. The lease term is 48 months with an option for the Company to extend the lease at the end of the lease term.

UNAUDITED PRO FORMA COMBINED FINANCIAL STATEMENTS

Organovo Holdings, Inc. (f/k/a Real Estate Restoration & Rental, Inc.), a Delaware corporation (the "Parent"), Organovo Acquisition Corp., a Delaware corporation (the "Acquisition Subsidiary") and Organovo, Inc., a Delaware corporation (the "Company"), are collectively referred to as the "Parties."

The Parties entered into a merger agreement on February 8, 2012 that provides for a merger of the Acquisition Subsidiary with and into the Company, with the Company remaining as the surviving entity after the merger and operating a wholly-owned subsidiary of Parent (the "Merger"). In the Merger, the stockholders of the Company received common stock of the Parent in exchange for their capital stock of the Company.

Simultaneously with the closing of the Merger, the Parent completed a Private Placement (the "Private Placement") of 5,000,500 units at the purchase price of $1.00 per unit. Each unit consisted of one share of the Parent's common stock, par value $0.001 per share, and one five year warrant to purchase one share of Parent common stock at an exercise price of $1.00 per share.

Also simultaneously with the closing of the Merger, the Company converted principal and interest of $1,525,387 related to its bridge financing (the "Bridge Conversion") into 1,525,387 shares of common stock, and issued five year warrants to purchase 1,525,387 shares of common stock at $1.00 per share.

Immediately following the Merger, the Parent split-off its wholly owned subsidiary, Organovo Split Corp., a Delaware corporation (the "Split-Off Subsidiary"), through the sale of all of the outstanding capital stock of the Split-Off Subsidiary (the "Split-Off") upon the terms and conditions of a split-off agreement.

The following unaudited pro forma combined balance sheet combines the historical balance sheet of the Parent as of December 31, 2011 and the historical balance sheet of the Company as of December 31, 2011, following the completion of the Merger, Private Placement, Bridge Conversion and Split-Off (collectively "the Transactions"). The Company remained as the surviving corporation of the Merger, becoming a wholly-owned subsidiary of the Parent. The pro forma combined balance sheet presented herein reflects the effects of the Transactions as if they had been consummated on December 31, 2011.

The following unaudited pro forma combined statements of operations combines the historical statements of operations of the Parent for the year ended December 31, 2011 and the Company for the year ended December 31, 2011, giving effect to the Transactions, as if they had occurred on January 1, 2011.

The following unaudited pro forma combined financial statements are presented to illustrate the estimated effects of the Transactions. The historical financial information has been adjusted to give effect to pro forma events that are directly attributable to the Transactions and factually supportable.

The following information should be read in conjunction with the pro forma combined financial statements.

- Accompanying notes to the unaudited pro forma combined financial statements.
- Separate historical financial statements of the Parent for the year ended December 31, 2011 as filed in its Annual Report on Form 10-K with the Securities and Exchange Commission.
- Separate historical financial statements of the Company for the year ended December 31, 2011 included it this Current Report on Form 8-K/A.

The unaudited pro forma combined financial statements are presented for informational purposes only. The pro forma information is not necessarily indicative of what the financial position or results of operations actually would have been had the Transactions been completed at the dates indicated. In addition, the unaudited pro forma combined financial statements do not purport to project the future financial position or operating results of the combined company.

The unaudited pro forma combined financial statements were prepared using the reverse acquisition application of the acquisition method of accounting as described in ASC 805-40-05-2, with the Company treated as the acquiror for U.S. GAAP accounting and financial reporting purposes. Accordingly, the unaudited pro forma combined financial statements are presented as a continuation of the Company's financial statements with adjustments to reflect the Transactions.

Organovo Holdings, Inc.
Pro Forma Combined Balance Sheet at December 31, 2011

	Real Estate Restoration & Rental, Inc. December 31, 2011	Organovo, Inc. December 31, 2011	Pro Forma Adjustments		Organovo Holdings, Inc. Pro Forma
Assets					
Current Assets					
Cash and cash equivalents	$ 753	$ 339,607	$ (104,219)	(1)	$ 4,585,823
			5,000,500	(3)	
			(650,065)	(3)	
			(753)	(4)	
Inventory	—	291,881			291,881
Deferred financing costs	—	318,843	(248,857)	(2)	69,986
Prepaid expenses and other current assets	2,500	79,874	(2,500)	(4)	79,874
Total current assets	3,253	1,030,205	3,994,106		5,027,564
Fixed Assets - Net	—	278,208			278,208
Other Assets - Net	—	100,419			100,419
Total assets	$ 3,253	$ 1,408,832	$ 3,994,106		$ 5,406,191
Liabilities and Stockholders' Equity (Deficit)					
Current Liabilities					
Accounts payable	$ 61,198	$ 657,560	$ (61,198)	(4)	$ 657,560
Accrued expenses	—	437,837			437,837
Deferred revenue	3,323	152,500	(3,323)	(4)	152,500
Accrued interest payable	—	24,018	796	(1)	—
			(4,219)	(1)	
			4,792	(2)	
			(25,387)	(2)	
Convertible notes payable, net	9,500	703,833	(100,000)	(1)	—
			(1,500,000)	(2)	
			896,167	(2)	
			(9,500)	(4)	
Total current liabilities	74,021	1,975,748	(801,872)		1,247,897
Derivative liabilities		1,266,869	52,876	(2)	1,573,169
			10,751	(2)	
			242,673	(3)	
Total liabilities	74,021	3,242,617	(495,572)		2,821,066
Commitments and Contingencies					
Stockholders' Equity (Deficit)					
Common stock, $0.0001 par value; 75,000,000 shares authorized, 22,445,254 shares issued and outstanding prior to the merger; 28,971,141 shares issued and outstanding after the merger	680	2,245	152	(2)	2,897
			500	(3)	
			(680)	(4)	
Additional paid-in capital	181,245	4,855,526	1,525,235	(2)	10,477,272
			(10,751)	(2)	
			5,000,000	(3)	
			(650,065)	(3)	
			(242,673)	(3)	
			(181,245)	(4)	
Deficit accumulated during the development stage	(252,693)	(6,691,556)	(796)	(1)	(7,895,044)
			(4,792)	(2)	
			(896,167)	(2)	
			(248,857)	(2)	
			(52,876)	(2)	
			252,693	(4)	
Total stockholders' equity (deficit)	(70,768)	(1,833,785)	4,489,678		2,585,125
Total Liabilities and Stockholders' Equity (Deficit)	$ 3,253	$ 1,408,832	$ 3,994,106		$ 5,406,191

See notes to unaudited pro forma combined financial information.

Organovo Holdings, Inc.
Pro Forma Combined Statement of Operations for the Year Ended December 31, 2011

	Real Estate Restoration & Rental, Inc. 12 Months Ended December 31, 2011	Organovo, Inc. Year Ended December 31, 2011	Pro Forma Adjustments		Organovo Holdings, Inc. Pro Forma
Revenues					
Product	$ 1,677	$ 223,500	$ (1,677)		$ 223,500
Collaborations	—	688,088	—		688,088
Grants	—	56,925	—		56,925
Total Revenues	1,677	968,513	(1,677)		745,013
Costs of product revenue		133,607			
Professional fees	111,352	—	(111,352)	(4)	—
General and administrative expenses	21,824	1,705,171	(21,824)	(4)	1,705,171
Research and development expenses	—	1,419,718	—		1,419,718
Impairment of licensing rights	27,723	—	(27,723)	(4)	—
Loss from Operations	(160,899)	(2,289,983)	160,899		(2,379,876)
Other Income (Expense)					
Interest expense	—	(2,066,889)	2,066,889	(5)	—
Interest income	—	64	—		64
Miscellaneous income (expense)	—	(26,454)	—		(26,454)
Total Other Income (Expense)	—	(2,093,279)	2,066,889		(26,390)
Net Loss	$ (160,899)	$ (4,383,262)	$ 2,214,706		$ (2,406,266)
Basic and Diluted Net Loss Per Common Share	$ (0.02)				$ (0.10)
Weighted Average Common Shares - Basic and Diluted	6,799,815		16,125,879	(6)	22,925,694

See notes to unaudited pro forma combined financial information.

NOTES TO UNAUDITED PRO FORMA COMBINED FINANCIAL STATEMENTS

1. Description of Transaction and Basis of Presentation

Organovo Holdings, Inc. (f/k/a Real Estate Restoration & Rental, Inc.), a Delaware corporation (the "Parent"), Organovo Acquisition Corp., a Delaware corporation (the "Acquisition Subsidiary") and Organovo, Inc., a Delaware corporation (the "Company") are collectively referred to as the "Parties."

The parties entered into a merger agreement on February 8, 2012 that provides for a merger of the Acquisition Subsidiary with and into the Company, with the Company remaining as the surviving entity after the merger and operating as a wholly-owned subsidiary of Parent (the "Merger"). In the Merger, the stockholders of the Company received common stock of the Parent in exchange for their capital stock of the Company.

Simultaneously with the closing of the Merger, the Parent completed a Private Placement (the "Private Placement") of 5,000,500 units at the purchase price of $1.00 per unit. Each unit consisted of one share of the Parent's common stock, par value $0.001 per share and one five year warrant to purchase one share of Parent common stock at an exercise price of $1.00 per share.

Also simultaneously with the closing of the Merger, the Company converted principal and interest of $1,525,387 related to its bridge financing (the "Bridge Conversion") into 1,525,387 shares of common stock, and issued five year warrants to purchase 1,525,387 shares of common stock at $1.00 per share.

Immediately following the Merger, the Parent split-off its wholly owned subsidiary, Organovo Split Corp., a Delaware corporation (the "Split-Off Subsidiary"), through the sale of all of the outstanding capital stock of the Split-Off Subsidiary (the "Split-Off") upon the terms and conditions of a split-off agreement.

The unaudited pro forma combined balance sheet combines the historical balance sheet of the Parent as of December 31, 2011 and the historical balance sheet of the Company as of December 31, 2011, following the completion of the Merger, Private Placement, Bridge Conversion and the Split-Off (collectively "the Transactions"). The Company remained as the surviving corporation of the Merger, becoming a wholly-owned subsidiary of the Parent. The pro forma combined balance sheet presented herein reflects the effects of the Transactions as if they had been consummated on December 31, 2011.

The unaudited pro forma combined statements of operations combines the historical statements of operations of the Parent for the year ended December 31, 2011 and the Company for year ended December 31, 2011, giving effect to the Transactions, as if they had occurred on January 1, 2011.

The unaudited pro forma combined financial statements are presented to illustrate the estimated effects of the Transactions. The historical financial information has been adjusted to give effect to pro forma events that are directly attributable to the Transactions and factually supportable.

2. Pro Forma Adjustments

There were no inter-company balances and transactions between the Parent and the Company as of the dates and for the periods of these pro forma condensed combined financial statements.

The pro forma adjustments included in the unaudited pro forma condensed combined financial statements are as follows:

1) To record payment of a $100,000 convertible note and $4,219 of accrued interest at the Merger date.

2) To record the conversion of $1,500,000 in convertible notes payable and $25,387 in accrued interest into 1,525,387 shares of common stock issued in the Private Placement; and to record the

discount of $896,167 as interest expense upon conversion; and to record interest expense of $179,177 for amortization of the deferred bridge financing costs upon conversion; and to record a reduction of equity of $139,667 to write-off merger related deferred financing costs; and to record interest expense of $52,600 related to the value of the 1,525,387 warrants issued in the Private Placement in connection with the conversion of the convertible notes; and to record offering costs of $21,040 related to the value of the 610,155 warrants issued to the placement agent.

The exercise price of the warrants is protected against down-round financing throughout the term of the warrant. Pursuant to ASC 815-15 and ASC 815-40, the fair value of the warrants was recorded as a derivative liability on the issuance date. The Company calculated the fair value of the warrants using the Black-Scholes Model using a volatility of 109.84%, an interest rate of 0.83% and a dividend yield of zero. The use of a binomial valuation model might result in a different valuation.

3) To record the issuance of 5,000,500 units in the Private Placement; and to record transaction expenses of $650,065 payable to the placement agent; and to record a derivative liability of $241,405 related to the value of the 5,000,500 warrants issued in the Private Placement and the 2,000,200 warrants issued to the placement agent.

The exercise price of the warrants is protected against down-round financing throughout the term of the warrant. Pursuant to ASC 815-15 and ASC 815-40, the fair value of the warrants was recorded as a derivative liability on the issuance date. The Company calculated the fair value of the warrants using the Black-Scholes Model using a volatility of 109.84%, an interest rate of 0.83% and a dividend yield of zero. The use of a binomial valuation model might result in a different valuation.

4) To record the effect of the Split-Off.

5) To reverse interest expense of $2,066,889 related to convertible notes payable assumed to be converted as of January 1, 2011.

6) To reflect the shares issued in the Private Placement (5,000,500) and Bridge Conversion (1,525,387) as issued and outstanding as of January 1, 2011.

3. Pro Forma Net Loss Per Share

The pro forma basic and diluted net loss per share are based on the number shares of common stock issued and outstanding of the Company after the Transactions, and assumes all common shares issued in the Transactions were issued and outstanding as of January 1, 2011.

EXHIBIT B

Organovo Holdings, Inc.
(A development stage company)

Condensed Balance Sheets

	September 30, 2012 (Unaudited)	December 31, 2011 (Audited)
Assets		
Current Assets		
Cash and cash equivalents	$ 7,675,918	$ 339,607
Grants receivable	95,477	—
Inventory	312,182	291,881
Deferred financing costs	—	318,843
Prepaid expenses and other current assets	144,515	79,874
Total current assets	8,228,092	1,030,205
Fixed Assets - Net	605,920	278,208
Restricted Cash	88,321	—
Other Assets	120,890	100,419
Total assets	$ 9,043,223	$ 1,408,832
Liabilities and Stockholders' Deficit		
Current Liabilities		
Accounts payable	$ 61,347	$ 657,560
Accrued expenses	830,033	437,837
Deferred revenue	75,000	152,500
Capital lease obligation, current portion	9,845	—
Accrued interest payable	—	24,018
Convertible notes payable, current portion	—	703,833
Total current liabilities	976,225	1,975,748
Capital lease obligation, net current portion	19,712	
Warrant liabilities	35,471,527	1,266,869
Total liabilities	$ 36,467,464	$ 3,242,617
Commitments and Contingencies (Note 5)		
Stockholders' Deficit		
Common stock, $0.001 par value; 150,000,000 shares authorized, 46,969,141 and 22,445,254 issued and outstanding at September 30, 2012 and December 31, 2011, respectively	46,969	22,445
Additional paid-in capital	13,208,039	4,835,326
Deficit accumulated during the development stage	(40,679,249)	(6,691,556)
Total stockholders' deficit	(27,424,241)	(1,833,785)
Total Liabilities and Stockholders' Deficit	$ 9,043,223	$ 1,408,832

The accompanying notes are an integral part of these condensed financial statements.

Organovo Holdings, Inc.
(A development stage company)

Unaudited Condensed Statements of Operations

	Three Months Ended September 30, 2012	Three Months Ended September 30, 2011	Nine Months Ended September 30, 2012	Nine Months Ended September 30, 2011	*Period from April 19, 2007 (Inception) through September 30, 2012*
Revenues					
Product	$ —	$ —	$ —	$ 100,000	$ 223,500
Collaborations	373,761	231,974	752,736	449,213	1,515,824
Grants	95,477	—	95,477	56,925	759,589
Total Revenues	469,238	231,974	848,213	606,138	2,498,913
Cost of product revenue	—	—	—	50,584	133,607
Selling, general, and administrative expenses	2,981,481	550,157	4,939,403	1,129,597	7,605,440
Research and development expenses	1,105,456	304,251	2,305,311	1,013,981	5,503,699
Loss from Operations	(3,617,699)	(622,434)	(6,396,501)	(1,588,024)	(10,743,833)
Other Income (Expense)					
Fair value of warrant liabilities in excess of proceeds received	—	—	(19,019,422)	—	(19,019,422)
Change in fair value of warrant liabilities	42,252,357	—	(5,190,637)	—	(5,197,206)
Financing transaction costs in excess of proceeds received	—	—	(2,129,500)	—	(2,129,500)
Loss on disposal of fixed assets	(158,366)	—	(158,366)	—	(158,366)
Interest expense	(203)	(182,320)	(1,087,656)	(294,245)	(3,406,098)
Interest income	1,358	—	3,342	—	5,348
Other income (expense)	596	(488)	(8,953)	(2,038)	(30,172)
Total Other Income (Expense)	42,095,742	(182,808)	(27,591,192)	(296,283)	(29,935,416)
Net Income (Loss)	$ 38,478,043	$ (805,242)	$ (33,987,693)	$ (1,884,307)	$ (40,679,249)
Net income (loss) per common share - basic	$ 0.87	$ (0.07)	$ (0.86)	$ (0.16)	$ —
Net income (loss) per common share - diluted	$ 0.69	$ (0.07)	$ (0.86)	$ (0.16)	$ —
Weighted average shares used in computing net income (loss) per common share - basic	44,099,554	12,262,691	39,349,681	11,537,879	—
Weighted average shares used in computing net income (loss) per common share - diluted	55,849,360	12,262,691	39,349,681	11,537,879	—

The accompanying notes are an integral part of these condensed financial statements.

Organovo Holdings, Inc.
(A development stage company)

Unaudited Condensed Statements of Stockholders' Deficit
Period from April 19, 2007 (Inception) through September 30, 2012

	Common Stock		Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total
	Shares	Amount			
Balance at Inception (April 19, 2007)	**—**	**$ —**	**$ —**	**$ —**	**$ —**
Issuance of Common stock	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	—
Net Loss	—	—	—	—	—
Balance at December 31, 2007	**—**	**$ —**	**$ —**	**$ —**	**$ —**
Issuance of Common stock to founders	1,729,532	1,730	(1,730)	—	—
Issuance of restricted Common stock	12,627,697	12,628	(12,628)	—	—
Stock-based compensation expense	—	—	1,742	—	1,742
Net Loss	—	—	—	(97,559)	(97,559)
Balance at December 31, 2008	**14,357,229**	**$14,358**	**$ (12,616)**	**$ (97,559)**	**$ (95,817)**
Issuance of restricted Common stock	130,422	130	(130)	—	—
Stock-based compensation expense	—	—	2,336	—	2,336
Net Loss	—	—	—	(872,041)	(872,041)
Balance at December 31, 2009	**14,487,651**	**$14,488**	**$ (10,410)**	**$ (969,600)**	**$ (965,522)**
Issuance of restricted Common stock	219,369	219	(219)	—	—
Stock-based compensation expense	—	—	3,856	—	3,856
Net Loss	—	—	—	(1,338,694)	(1,338,694)
Balance at December 31, 2010	**14,707,020**	**$14,707**	**$ (6,773)**	**$ (2,308,294)**	**$ (2,300,360)**
Issuance of Common stock through conversion of notes payable	7,676,828	7,677	3,482,081	—	3,489,758
Issuance of restricted Common stock	61,406	61	(61)	—	—
Warrants issued with convertible notes and conversion of notes	—	—	1,111,364	—	1,111,364
Beneficial conversion feature of convertible notes payable	—	—	239,700	—	239,700
Stock-based compensation expense	—	—	9,015	—	9,015
Net Loss	—	—	—	(4,383,262)	(4,383,262)
Balance at December 31, 2011	**22,445,254**	**$22,445**	**$ 4,835,326**	**$ (6,691,556)**	**$ (1,833,785)**
Issuance of Common stock in connection with the merger	6,000,000	6,000	(6,000)	—	—
Issuance of Common stock through private placements in connection with the merger	13,722,600	13,723	13,708,877	—	13,722,600
Costs associated with the merger	—	—	(13,722,600)	—	(13,722,600)
Issuance of Common stock through conversion of notes payable and accrued interest in connection with the merger	1,525,387	1,525	1,523,862	—	1,525,387
Issuance of warrants to consultant	—	—	72,919	—	72,919
Issuance of Common stock from warrant exercises	1,810,831	1,811	1,766,665	—	1,768,476
Warrant liability removed due to exercise of warrants	—	—	3,728,001	—	3,728,001
Issuance of Common stock from stock option exercises	224,064	224	17,701		17,925
Issuance of restricted common stock	1,380,000	1,380	(1,380)		—
Restricted stock forfeitures	(138,995)	(139)	139		—
Stock-based compensation expense	—	—	1,284,529	—	1,284,529
Net Loss	—	—	—	(33,987,693)	(33,987,693)
Balance at September 30, 2012	**46,969,141**	**$46,969**	**$ 13,208,039**	**$(40,679,249)**	**$(27,424,241)**

The accompanying notes are an integral part of these condensed financial statements.

Organovo Holdings, Inc.
(A development stage company)

Unaudited Condensed Statements of Cash Flows

	Nine Months Ended September 30, 2012	Nine Months Ended September 30, 2011	Period from April 19, 2007 (Inception) through September 30, 2012
Cash Flows From Operating Activities			
Net loss	$ (33,987,693)	$ (1,884,307)	$ (40,679,249)
Adjustments to reconcile net loss to net cash used in operating activities:			
Amortization of deferred financing costs	318,843	—	438,296
Loss on disposal of fixed assets	158,366	—	158,366
Depreciation and amortization	116,828	49,929	273,156
Amortization of debt discount	896,167	97,565	2,083,735
Interest accrued on convertible notes payable	11,616	196,680	495,392
Fair value of warrant liabilities in excess of proceeds	19,019,422	—	19,019,422
Change in fair value of warrant liabilities	5,190,637	—	5,197,206
Stock-based compensation	1,284,529	2,596	1,301,478
Amortization of warrants issued for services	36,054	—	36,054
Warrants issued in connection with exchange agreement	—	—	527,629
Increase (decrease) in cash resulting from changes in:			
Grants receivable	(95,477)	59,744	(95,477)
Inventory	(327,993)	(212,395)	(619,874)
Prepaid expenses and other assets	(53,490)	1,044	(146,496)
Accounts payable	(596,213)	374,973	61,347
Accrued expenses	392,196	260,031	830,033
Deferred revenue	(77,500)	95,075	75,000
Net cash used in operating activities	(7,713,708)	(959,065)	(11,043,982)
Cash Flows From Investing Activities			
Restricted cash deposits	(88,321)	—	(88,321)
Purchases of fixed assets	(255,750)	(16,290)	(682,573)
Purchases of intangible assets	—	(65,000)	(95,000)
Net cash used in investing activities	(344,071)	(81,290)	(865,894)
Cash Flows From Financing Activities			
Proceeds from issuance of convertible notes payable	—	1,042,500	4,630,000
Proceeds from issuance of common stock and warrants	15,491,075	—	15,491,075
Proceeds from exercise of stock options	17,925	—	17,925
Proceeds from issuance of related party notes payable	—	225,000	250,000
Principal payments on capital lease obligations	(4,663)	—	(4,663)
Repayment of related party notes payable	—	(250,000)	(250,000)
Repayment of convertible notes and interest payable	(110,247)	—	(110,247)
Deferred financing costs	—	(205,984)	(438,296)
Net cash provided by financing activities	15,394,090	811,516	19,585,794
Net Increase (Decrease) in Cash and Cash Equivalents	7,336,311	(228,839)	7,675,918
Cash and Cash Equivalents at Beginning of Period	339,607	285,308	—
Cash and Cash Equivalents at End of Period	$ 7,675,918	$ 56,469	$ 7,675,918
Supplemental Disclosure of Cash Flow Information:			
Interest	$ 10,247	$ —	$ 10,247
Income Taxes	$ 800	$ 2,400	$ 3,200

Supplemental Disclosure of Noncash Investing and Financing Activities:

During 2008, the Company issued 1,729,532 shares of Common stock to its founders.

During 2011 and 2010 and for the period from April 19, 2007 (Inception) through December 31, 2011, the Company issued 61,406, 219,369 and 13,038,894, respectively, shares of restricted Common stock to certain employees, advisors and consultants of the Company.

During 2011 and for the period from April 19, 2007 (Inception) through December 31, 2011, the Company issued certain convertible notes payable that included warrants. The warrants and the related beneficial conversion feature, valued at $823,435 were classified as equity instruments and recorded as a discount to the carrying value of the related debt.

During 2011 and for the period from April 19, 2007 (Inception) through December 31, 2011, the Company issued warrants, valued at approximately $1,260,000, in connection with certain convertible notes payable. The warrants were recorded as a warrant liability and recorded as a discount to the carrying value related to debt.

During 2011, the Company issued 7,676,828 shares of Common stock to note holders for the conversion of Convertible Notes with a principal balance totaling $3,030,000 and accrued interest totaling $459,758.

During 2012, the Company issued 1,525,387 shares of Common stock to note holders for the conversion of Convertible Notes with a principal balance totaling $1,500,000 and accrued interest totaling $25,387.

During 2012, the Company issued warrants, valued at approximately $32,743,000, in connection with the Reverse Merger and the Private Placement. The warrants were recognized as a derivative liability.

During 2012, the Company purchased equipment valued at $34,220 through a capital lease.

During 2012, the Company transferred approximately $307,700 of inventory to fixed assets.

During 2012, the Company issued 100,000 warrants to purchase shares of our common stock for consulting services. The warrants were valued at approximately $73,000.

The accompanying notes are an integral part of these condensed financial statements.

Organovo Holdings, Inc.
(A development stage company)

Notes to Condensed Financial Statements

1. Summary of Significant Accounting Policies

Nature of operations and basis of presentation

References in these notes to the unaudited condensed financial statements to "Organovo Holdings, Inc.," "Organovo Holdings," "we," "us," "our," "the Company" and "our Company" refer to Organovo Holdings, Inc. and its consolidated subsidiary Organovo, Inc.

The Company has developed and is commercializing a platform technology for the generation of three-dimensional (3D) human tissues that can be employed in drug discovery and development, biological research, and as therapeutic implants for the treatment of damaged or degenerating tissues and organs.

As of September 30, 2012, the Company has devoted substantially all of its efforts to product development, raising capital, and building infrastructure. The Company has not realized significant revenues from its planned principal operations. Accordingly, the Company is considered to be in the development stage.

The accompanying interim condensed financial statements have been prepared by the Company, without audit, in accordance with the instructions to Form 10-Q and, therefore, do not necessarily include all information and footnotes necessary for a fair statement of its financial position, results of operations and cash flows in accordance with generally accepted accounting principles ("GAAP"). The balance sheet at December 31, 2011 is derived from the audited balance sheet at that date.

In the opinion of management, the unaudited financial information for the interim periods presented reflects all adjustments, which are only normal and recurring, necessary for a fair statement of financial position, results of operations and cash flows. These financial statements should be read in conjunction with the financial statements included in the Company's Form 8-K/A for the fiscal year ended December 31, 2011 filed with the Securities and Exchange Commission (the "SEC") on May 11, 2012. Operating results for interim periods are not necessarily indicative of operating results for the Company's 2012 fiscal year.

Merger transaction

On February 8, 2012, Organovo, Inc., a privately held Delaware corporation, merged with and into Organovo Acquisition Corp., a wholly-owned subsidiary of the Company, a publicly traded Delaware corporation, with the Organovo, Inc. surviving the merger as a wholly-owned subsidiary of the Company (the "Merger"). As a result of the Merger, the Company acquired the business of the Organovo, Inc., and will continue the existing business operations of Organovo, Inc.

Simultaneously with the Merger, on February 8, 2012 (the "closing date"), all of the issued and outstanding shares of Organovo, Inc.'s common stock converted, on a 1 for 1 basis, into shares of the Company's Common stock, par value $0.001 per share. Also, on the closing date, all of the issued and outstanding options to purchase shares of Organovo, Inc.'s common stock and other

outstanding warrants to purchase Organovo, Inc.'s common stock, and all of the issued and outstanding bridge warrants to purchase shares of Organovo, Inc.'s common stock, converted, respectively, on a 1 for 1 basis, into options, warrants and new bridge warrants to purchase shares of the Company's common stock.

Immediately following the consummation of the Merger: (i) the former security holders of Organovo, Inc. common stock had an approximate 75% voting interest in the Company and the Company stockholders retained an approximate 25% voting interest, (ii) former executive management team of Organovo, Inc. remained as the only continuing executive management team for the Company, and (iii) the Company's ongoing operations consist solely of the ongoing operations of Organovo, Inc. Based primarily on these factors, the Merger was accounted for as a reverse merger and a recapitalization in accordance with GAAP. As a result, these financial statements reflect the historical results of Organovo, Inc. prior to the Merger, and the combined results of the Company following the Merger. The par value of Organovo, Inc. common stock immediately prior to the Merger was $0.0001 per share. The par value subsequent to the Merger is $0.001 per share, and therefore the historical results of Organovo, Inc. prior to the Merger have been retroactively adjusted to affect the change in par value.

In connection with three separate closings of a private placement transaction completed in connection with the Merger (the "Private Placement"), the Company received gross proceeds of approximately $5,000,000, $1,800,000 and $6,900,000 on February 8, 2012, February 29, 2012 and March 16, 2012, respectively. The Company previously received $1,500,000 from the purchase of 6% convertible notes which were automatically converted into 1,500,000 shares of common stock, plus 25,387 shares for accrued interest of $25,387 on the principal, at February 8, 2012. See Note 3.

The cash transaction costs related to the Merger were approximately $2,129,500.

Before the Merger, Organovo Holdings' board of directors and stockholders adopted the 2012 Equity Incentive Plan (the "2012 Plan"). The 2012 Plan provides for the issuance of 6,553,986 shares of the Company's Common stock to executive officers, directors, advisory board members and employees. In addition, Organovo Holdings assumed and adopted Organovo, Inc.'s 2008 Equity Incentive Plan.

Liquidity

As of September 30, 2012, the Company had an accumulated deficit of approximately $40,679,200. The Company also had negative cash flow from operations of approximately $7,713,700 during the nine months ended September 30, 2012.

On February 8, 2012, the Company received gross proceeds of approximately $5,000,000 in a private placement offering in conjunction with the Merger. On February 29, 2012 and March 16, 2012, the Company completed two additional closings of its Private Placement and received total gross proceeds of approximately $8,722,000.

The Company expects to cover its anticipated operating expenses over the next twelve months through cash on hand (including the funds raised during the first quarter of 2012 through the Private Placement of its securities), funds received through equity or debt financing, and funds received from grants and its collaborative agreements, and other commercial arrangements.

The Company's ability to continue its operations is dependent upon its ability to raise additional capital through equity or debt financing, and to generate capital through collaborative research agreements and other commercial arrangements. There can be no assurance that any additional financing will be available on acceptable terms or available at all. Any equity financing may result in dilution to existing stockholders and any debt financing may include restrictive covenants.

The accompanying financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of these uncertainties.

Use of estimates

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates. Significant estimates used in preparing the financial statements include those assumed in computing the valuation of warrants and conversion features, revenue recognized under the proportional performance model, the valuation of stock-based compensation expense, and the valuation allowance on deferred tax assets.

Cash and cash equivalents

The Company considers all highly liquid investments with original maturities of 90 days or less to be cash equivalents.

Restricted cash

As of September 30, 2012, the Company had approximately $88,300 of restricted cash deposited with a financial institution. $38,300 is held in certificates of deposit to support a letter of credit agreement related to the facility lease entered into during 2012. The additional $50,000 is held by the financial institution as a guarantee for the Company's commercial credit cards.

Grants receivable

Grants receivable represent amounts due from the NHLBI, a division of the NIH under three research grants. The Company considers the grants receivable to be fully collectible; and accordingly, no allowance for doubtful amounts has been established. If amounts become uncollectible, they are charged to operations.

Inventory

Inventories are stated at the lower of the cost or market (first-in, first out). Inventory at September 30, 2012 consisted of approximately $48,400 in finished goods, $193,800 work-in-process and $70,000 in raw materials. Inventory at December 31, 2011 consisted of approximately $235,000 in finished goods and $56,900 in raw materials.

The Company provides inventory allowances based on excess or obsolete inventories determined based on anticipated use in the final product. There was no obsolete inventory reserve as of September 30, 2012 or December 31, 2011.

Deferred financing costs

As of December 31, 2011, deferred financing costs consisted of approximately $140,000 associated with the Merger transaction and approximately $179,000 associated with convertible notes as part of the private placement offering that was initiated in the fourth quarter of 2011. The deferred financing costs related to the private placement offering were amortized over the life of the convertible notes and fully amortized to expense upon conversion of the convertible notes on February 8, 2012. The deferred financing costs associated with the Merger transaction in excess of the proceeds received were expensed at the effective Merger date. As of September 30, 2012, there were no deferred financing costs.

Fixed assets and depreciation

Property and equipment are carried at cost. Expenditures that extend the life of the asset are capitalized and depreciated. Depreciation and amortization are provided using the straight-line method over the estimated useful lives of the related assets or, in the case of leasehold improvements, over the lesser of the useful life of the related asset or the lease term. As of September 30, 2012, the estimated useful life of the fixed assets range between two and five years.

Impairment of long-lived assets

In accordance with authoritative guidance the Company reviews its long-lived assets, including property and equipment and other assets, for impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be fully recoverable. To determine recoverability of its long-lived assets, the Company evaluates whether future undiscounted net cash flows will be less than the carrying amount of the assets and adjusts the carrying amount of its assets to fair value. Management has determined that no impairment of long-lived assets occurred in the period from inception through September 30, 2012.

Fair value measurement

Financial assets and liabilities are measured at fair value, which is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The following is a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value:

- Level 1 — Quoted prices in active markets for identical assets or liabilities.
- Level 2 — Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

As of September 30, 2012 and December 31, 2011, cash and cash equivalents were comprised of cash in checking accounts.

The Company used Level 3 inputs for its valuation methodology for the warrant derivative liabilities. The estimated fair values were determined using a Monte Carlo option pricing model based on various assumptions (see Note 2). The Company's derivative liabilities are adjusted to reflect estimated fair value at each period end, with any decrease or increase in the estimated fair value being recorded in other income or expense accordingly, as adjustments to fair value of derivative liabilities.

At September 30, 2012, the estimated fair values of the liabilities measured on a recurring basis are as follows:

Fair Value Measurements at September 30, 2012

	Balance at September 30, 2012	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
Warrant liability	$ 35,471,527	—	—	$ 35,471,527

The following table presents the activity for liabilities measured at estimated fair value using unobservable inputs for the nine months ended September 30, 2012:

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)

	Warrant Derivative Liability
Beginning Balance at December 31, 2011	$ 1,266,869
Issuances	32,742,022
Adjustments to estimated fair value	5,190,637
Warrant liability removal due to settlements	(3,728,001)
Ending Balance at September 30, 2012	$ 35,471,527

Revenue recognition

Research and Development Revenue Under Collaborative Agreements.

In December 2010, the Company entered into a 12 month research contract agreement with a third party, whereby the Company was engaged to perform research and development services on a fixed-fee basis for approximately $600,000. Based on the proportional performance criteria, the Company recognized approximately $75,000 and $75,000 and $232,000 and $449,200 in revenue related to the contract during three and nine months ended September 30, 2012 and 2011, respectively. Total revenue recognized on the contract from inception through September 30, 2012 was approximately $525,000.

In October 2011, the Company entered into a research contract agreement with a third party, whereby the Company will perform research and development services on a fixed-fee basis for $1,365,000. The agreement included an initial payment to the Company of approximately $239,000, with remaining payments expected to occur over a 21-month period. During the three and nine months ended September 30, 2012, the Company recorded approximately $298,800 and $677,800, respectively, in revenue related to the research contract in recognition of the proportional performance achieved by the Company. Total revenue recognized on the contract from inception through September 30, 2012 was approximately $916,800.

Billings to customers or payments received from customers are included in deferred revenue on the balance sheet until all revenue recognition criteria are met. As of September 30, 2012 and December 31, 2011, the Company had $75,000 and $152,500 in deferred revenue related to its collaborative research programs.

NIH and U.S. Treasury Grant Revenues

During 2010, the U.S. Treasury awarded the Company two one-time grants totaling approximately $397,000 for investments in qualifying therapeutic discovery projects under section 48D of the Internal Revenue Code. The grants cover reimbursement for qualifying expenses incurred by the Company in 2010 and 2009. The proceeds from these grants are classified in “Revenues — Grants” for the period from inception through September 30, 2012.

During 2012, 2010 and 2009, the NHLBI, a division of the NIH, awarded the Company three research grants totaling approximately $558,000. Revenues from the NIH grants are based upon internal and subcontractor costs incurred that are specifically covered by the grants, and where applicable, an additional facilities and administrative rate that provides funding for overhead expenses. These revenues are recognized when expenses have been incurred by subcontractors and as the Company incurs internal expenses that are related to the grants. Revenue recognized under these grants for the three and nine months ended September 30, 2012 and 2011 was approximately $95,500 and $95,500 and $0 and $57,000, respectively. Total revenue recorded under these grants from inception through September 30, 2012 was approximately $363,000.

Net income (loss) per share

Net income (loss) per share is presented as both basic and diluted net income (loss) per share. Basic net income (loss) per share excludes any dilutive effects of options, shares subject to repurchase and warrants. Diluted net income (loss) per share includes the impact of potentially dilutive securities. No dilutive effect was calculated for the nine months ended September 30, 2012 or the three and nine months ended September 30, 2011 as the Company reported a net loss for each respective period and the effect would have been anti-dilutive. Total common stock equivalents that were excluded from computing diluted net income (loss) per share were approximately 429,658 and 25,801,190 for the three and nine months ended September 30, 2012, respectively, and 4,494,031 for the three and nine months ended September 30, 2011.

2. Derivative Liability

During 2012, in relation to the reverse Merger and the three offerings under the Private Placement, the Company issued 21,347,182 five-year warrants to purchase the Company's Common stock. The exercise price of the warrants is protected against down-round financing throughout the term of the warrant, as described below. The terms of the warrants issued in the first quarter of 2012 are the same as those issued in connection with the convertible notes in October and November of 2011. Pursuant to ASC 815-15 and ASC 815-40, the fair value of the warrants of approximately $32,742,000 was recorded as a derivative liability on the issuance dates.

As of December 31, 2011, the Company had a warrant liability of $1,266,869 related to 1,500,000 warrants issued with Convertible Notes in the fourth quarter of 2011.

The Company revalued all of the warrants at the end of the period, and the estimated fair value of the outstanding warrant liabilities is $35,471,527 at September 30, 2012. The change in fair value of the derivative liabilities for the three and nine months ended September 30, 2012 was a decrease of $42,252,357 and an increase of $5,190,637, respectively, and is included in other income (expense) in the 2012 statement of operations.

During the nine months ended September 30, 2012, 1,768,475 of these warrants that are classified as derivative liabilities were exercised. The warrants were revalued as of the settlement date, and the change in fair value was recognized to earnings. The Company also recognized a reduction in the warrant liability based on the fair value as of the settlement date, with a corresponding increase in additional paid-in capital.

The derivative liabilities were valued at the closing dates of the Private Placement and at March 31, June 30 and September 30 of 2012 using a Monte Carlo valuation model with the following assumptions:

	Closing dates	March 31, 2012	June 30, 2012	September 30, 2012
Closing price per share of common stock	$ N/A	$ 2.47	$ 3.99	$ 2.05
Exercise price per share	$ 1.00	$ 1.00	$ 1.00	$ 1.00
Expected volatility	105.8%-110.5%	103.5%	102.9%	102.7%
Risk-free interest rate	0.82%-1.07%	1.04%	0.72%	0.62%
Dividend yield	—	—	—	—
Remaining expected term of underlying securities (years)	5	4.90	4.80	4.42

In addition, as of the valuation dates, management assessed the probabilities of future financings assumptions in the Monte Carlo valuation models. Management also applied a discount for lack of marketability to the valuation of the derivative liabilities based on such trading restrictions due to the shares not being registered.

If, prior to the expiration date of the warrants, the Company issues additional shares of Common Stock, as defined below, without consideration or for a consideration per share less than the exercise price of the warrants in effect immediately prior to such issue, then the exercise price shall be reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such exercise price by a fraction, (A) the numerator of which shall be (1) the number of shares of Common stock outstanding immediately prior to such issue plus (2) the number of shares of Common stock which the aggregate consideration received or to be received by the Company for the total number of additional shares of Common stock so issued would purchase at such exercise price; and (B) the denominator of which shall be the number of shares of Common stock outstanding immediately prior to such issue plus the number of such additional shares of Common stock so issued; provided that (i) all shares of Common stock issuable upon conversion or exchange of convertible securities outstanding immediately prior to such issue shall be deemed to be outstanding, and (ii) the number of shares of Common stock deemed issuable upon conversion or exchange of such outstanding convertible securities shall be determined without giving effect to any adjustments to the conversion or exchange price or conversion or exchange rate of such convertible securities resulting from the issuance of additional shares of Common stock that is the subject of this calculation. For purposes of the warrants, “additional shares of common stock” shall mean all shares of Common stock issued by the Company after the effective date (including without limitation any shares of Common stock issuable upon conversion or exchange of any convertible securities or upon exercise of any option or warrant, on an as-converted basis), other than: (i) shares of Common stock (and/or warrants for any class of equity securities of the Company) issued or issuable upon conversion or exchange of any convertible securities or exercise of any options or warrants outstanding on the effective date; (ii) shares of Common stock issued or issuable by reason of a dividend, stock split, split-up or other distribution on shares of Common stock; (iii) shares of Common stock (or options with respect thereto) issued or issuable to employees or directors of, or consultants to, the Company or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Company; (iv) any securities issued or issuable by the Company pursuant to (A) the Private Placement; or (B) the Merger; (v) securities issued pursuant to acquisitions or strategic transactions approved by a majority of disinterested directors of the Company, provided that any such issuance shall only be to a person which is, itself or through its subsidiaries, an operating company in a business synergistic with the business of the Company and in which the Company receives benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities and (vi) securities issued to financial institutions, institutional investors or lessors in connection with credit arrangements, equipment financings or similar transactions approved by a majority of disinterested directors of the Company, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities.

Upon each adjustment of the exercise price pursuant to the provisions stated above, the number of warrant shares issuable upon exercise of the warrants shall be adjusted by multiplying a number equal to the exercise price in effect immediately prior to such adjustment by the number of warrant shares issuable upon exercise of the warrant immediately prior to such adjustment and dividing the product so obtained by the adjusted exercise price.

3. Convertible Notes Payable

Convertible notes

At December 31, 2011, an unsecured $100,000 Convertible Note, with interest at 10% and a maturity date of April 2014, remained outstanding. In February 2012, at the close of the Merger, the convertible note and accrued interest in the aggregate of approximately $110,000 were repaid.

Private placement

On September 18, 2011, Organovo, Inc.'s Board of Directors authorized a private placement offering of up to 30 units of its securities at a price of $50,000 per unit for an aggregate purchase price of $1,500,000. Each unit consisted of a convertible note in the principal amount of $50,000 accruing simple interest at the rate of 6% per annum (the "Convertible Notes"), plus five-year warrants to purchase 50,000 shares of the next Qualified Round of Equity Securities, at an exercise price of $1.00 per share. The principal plus accrued interest was convertible into the Company's common stock upon consummation of the Merger.

During October and November 2011, $1,500,000 of Convertible Notes bearing interest at 6% per annum with a maturity date of March 30, 2012, and five-year warrants to purchase 1,500,000 shares of the Company's Common stock were issued to investors under the Private Placement. The warrants are exercisable at $1.00 per share, expire in five years, and contain down-round price protection. The Convertible Notes were outstanding at December 31, 2011, and were converted into 1,525,387 units during February 2012, in connection with the Merger.

The Company determined that the warrants represent a derivative instrument due to the down-round price protection, and accordingly, the Company recorded a derivative liability related to the warrants. Additionally, upon issuance of the notes during 2011, the Company recorded the discount for the beneficial conversion feature of $239,700. The debt discount associated with the warrants and beneficial conversion feature were amortized to interest expense over the life of the Convertible Notes, and fully amortized upon conversion of the Convertible Notes. The Company recorded approximately $0 and $896,200 of interest expense for the amortization of the debt discount during the three and nine months ended September 30, 2012, respectively, and approximately $1,500,000 for the period from inception through September 30, 2012.

As consideration for locating investors to participate in the Private Placement, the placement agent earned a cash payment of $195,000. Additionally, upon closing of the Merger transaction, the placement agent earned five-year warrants to purchase 610,155 shares of the Company's Common stock at $1.00 per share. These warrants contain down round protection and were classified as derivative liabilities upon issuance. See Note 2.

Interest expense, including amortization of the note discounts, for the three and nine months ended September 30, 2012 and 2011 was approximately $200 and $1,087,700 and $182,300 and $294,200, respectively. Interest expense, including amortization of the note discounts, for the period from April 19, 2007 (inception) through September 30, 2012 was approximately $3,406,100.

During 2012, concurrently with the closing of the Merger and in contemplation of the Merger, the Company completed the initial closing of the Private Placement of up to 8,000,000 units of its securities, at a price of $1.00 per unit, with the ability to increase the offering to an aggregate of up to 16,000,000 units. Each unit consisted of one share of Common Stock and a warrant to purchase one share of Common Stock. The Company completed three closings under the Private Placement during the three months ended March 31, 2012, and raised total gross proceeds of $13,722,600 and total net proceeds of $11,593,066. The Company issued 13,722,600 shares of its Common Stock and warrants to purchase 15,247,987 shares of its Common Stock (including warrants to purchase 1,525,387 shares to former holders of the bridge notes) exercisable at $1.00 to investors in the Offering. The placement agent and its selected dealers were paid total cash commissions of $1,372,260 and the placement agent was paid an expense allowance of $411,678 and was issued placement agent warrants to purchase 6,099,195 shares of the Company's Common Stock at an exercise price of $1.00 per share.

The warrants issued to the investors and the placement agent, as described above, contain down round protection, and accordingly, were classified as derivative liabilities upon issuance. On the closing date, the derivative liabilities were recorded at an estimated fair value of approximately $32,742,000. Given that the fair value of the derivative liabilities exceeded the total proceeds of the private placement of $13,722,600, no net amounts were allocated to the common stock. The amount by which the recorded liabilities exceeded the proceeds of approximately $19,019,400 was charged to other expense at the closing dates. The Company has revalued the derivative liability as of September 30, 2012, and will continue to do so on each subsequent balance sheet date until the securities to which the derivative liabilities relate are exercised or expire, with any changes in the fair value recognized through earnings in the statement of operations. See Note 2.

Registration rights agreement

The Company entered into a registration rights agreement (each, a "Registration Rights Agreement") with the investors in the Offering. Under the terms of the Registration Rights Agreement, the Company agreed to file a registration statement covering the resale of the Common Stock underlying the Units and the Common Stock that is issuable on exercise of the Investor Warrants (but not the Common Stock that is issuable upon exercise of the warrants issued as compensation to the placement agent in connection with the Offering) within 90 days from the final closing date of the Offering (the "Filing Deadline"). The Company filed the registration statement on June 13, 2012. The registration statement became effective during July 2012.

The Company agreed to use reasonable efforts to maintain the effectiveness of the registration statement through the one year anniversary from the date the registration statement was declared effective by the Securities and Exchange Commission (the "SEC"), or until Rule 144 of the 1933 Act is available to investors in the Offering with respect to all of their shares, whichever is earlier. If the Company had not met the Effectiveness Deadline, the Company would have been liable for monetary penalties equal to one-half of one percent (0.5%) of each investor's investment in the offering at the end of every 30 day period following such Effectiveness Deadline failure until such failure was cured. No payments shall be owed with respect to any period during which all of the investor's registrable securities may be sold by such investor under Rule 144 or pursuant to another exemption from registration.

4. Stockholders' Equity

Common stock

During February and March 2012, the Company issued 21,247,987 shares of Common stock related to the Merger. See Notes 1 and 3. During June 2012, the Company issued 137,584 shares of common stock upon exercise of 145,000 warrants. During the three months ended September 30, 2012, the Company issued 1,673,247 shares of Common stock upon exercise of 1,675,975 warrants.

During August 2012, 224,064 stock options were exercised for 224,064 shares of Common stock.

Restricted stock awards

In February 2008, four founders, including the Chief Executive Officer ("CEO") and three directors of the Company received 11,779,960 shares of restricted Common stock, 25% vesting after the first year and the remaining 75% vesting in equal quarterly portions over the following three years.

From 2008 through December 31, 2011, the Company issued a total of 1,258,934 shares of restricted Common stock to various employees, advisors, and consultants of the Company. 1,086,662 of those shares were issued under the 2008 Equity Incentive Plan and the remaining 172,272 shares were issued outside the plan. 1,380,000 shares of restricted stock were issued during the nine months ended September 30, 2012.

During the three and nine months ended September 30, 2012, the Company issued an aggregate 950,000 of restricted stock units to certain members of senior management and 230,000 restricted stock units to non-executive employees. The vesting schedule is 25% on the anniversary of the vesting start date over 4 years.

During the three and nine months ended September 30, 2012, the Company issued an aggregate 200,000 restricted stock units to certain members of senior management. The vesting of these restricted stock units are performance based. As of September 30, 2012, the Company believes the financial targets will be met, and accordingly is recognizing the related stock based compensation expense over the requisite service period.

During the three and nine months ended September 30, 2012, there were 80,653 and 138,995 shares, respectively, of restricted stock cancelled. There were 190,000 restricted stock units held by two employees that vested during the period. On the vesting date, 80,653 shares of Common stock were returned to the Company, at the option of the holders, to cover the tax liability related to the vesting of the restricted stock units. Upon the return of the Common stock, stock option grants, equal to the amount of Common stock returned to the Company, with immediate vesting, were granted to the individuals at the vesting date market value strike price.

A summary of the Company's restricted stock award activity is as follows:

	Number of Shares
Unvested at December 31, 2007	—
Granted	12,627,697
Vested	(65,211)
Canceled / forfeited	—
Unvested at December 31, 2008	12,562,486
Granted	130,422
Vested	(5,373,004)
Canceled / forfeited	—
Unvested at December 31, 2009	7,319,904
Granted	219,369
Vested	(3,256,191)
Canceled / forfeited	—
Unvested at December 31, 2010	4,283,082
Granted	61,406
Vested	(3,233,193)
Canceled / forfeited	—
Unvested at December 31, 2011	1,111,295
Granted	1,380,000
Vested	(1,485,820)
Canceled / forfeited	(138,995)
Unvested at September 30, 2012	866,480

The fair value of each restricted Common stock award is recognized as stock-based expense over the vesting term of the award. The Company recorded restricted stock-based compensation expense in operating expenses for employees and non-employees of approximately $998,100 and $998,700 and $700 and $2,600 for the three and nine months ended September 30, 2012 and 2011, respectively. The Company recorded restricted stock-based compensation expense of approximately $1,013,300 for the period from April 19, 2007 (inception) through September 30, 2012.

As of September 30, 2012, total unrecognized restricted stock-based compensation expense was approximately $1,354,400, which will be recognized over a weighted average period of 1.97 years.

Stock options

Under the 2008 Equity Incentive Plan, on October 12, 2011, the Company granted an officer incentive stock options to purchase 896,256 shares of Common stock at an exercise price of $0.08 per share, a quarter of which vested on the one year anniversary of employment, in May 2012, and the remaining options will vest ratably over the remaining 36 month term.

During April 2012, 305,658 incentive stock options were issued, and during the three months ended September 30, 2012, a total of 1,420,903 incentive stock options were issued, under the 2012 Equity Incentive Plan, at various exercise prices, a quarter of which will vest on either the one year anniversary of employment or one year anniversary of the vesting commencement date. The remaining options will vest ratably over the remaining 36 month terms, with the exception of 80,653 of the incentive stock option grants that have immediate vesting at the grant date and 126,000 of the incentive stock option grants that vest quarterly over 3 years.

The following table summarizes stock option activity for the nine months ended September 30, 2012:

	Options Outstanding	Weighted-Average Exercise Price
Outstanding at December 31, 2011	896,256	$ 0.08
Options Granted	1,726,561	$ 1.82
Options Canceled	—	—
Options Exercised	(224,064)	0.08
Outstanding at September 30, 2012	2,398,753	$ 1.33
Vested and Exercisable at September 30, 2012	82,329	$ 2.10

During the three and nine months ended September 30, 2012, the Company’s Board of Directors awarded 1,420,903 and 1,726,561 options, respectively, to certain employees. There were no stocks options granted for the same periods in 2011.

The Company uses the Black-Scholes valuation model to calculate the fair value of stock options. Stock based compensation expense is recognized over the vesting period using the straight-line method. The fair value of employee stock options was estimated at the grant date using the following weighted average assumptions:

	Nine months ended September 30, 2012
Dividend yield	—
Volatility	91.83%
Risk-free interest rate	0.88%
Expected life of options	6.04 years

The weighted average grant date fair value per share of employee stock options granted during the nine months ended September 30, 2012 was $1.40.

The assumed dividend yield was based on the Company's expectation of not paying dividends in the foreseeable future. Due to the Company's limited historical data, the estimated volatility incorporates the historical and implied volatility of comparable companies whose share prices are publicly available. The risk-free interest rate assumption was based on the U.S. Treasury rates. The weighted average expected life of options was estimated using the average of the contractual term and the weighted average vesting term of the options.

The total employee stock-based compensation recorded as operating expenses was approximately $243,800 and $286,400 for the three and nine months ended September 30, 2012, respectively, and $292,800 for the period from April 19, 2007 (inception) through September 30, 2012.

The total unrecognized compensation cost related to unvested stock option grants as of September 30, 2012 was approximately $2,178,700, and the weighted average period over which these grants are expected to vest is 3.66 years.

Warrants

During 2011, the Company issued warrants to purchase 2,909,750 shares of its Common stock. These warrants are immediately exercisable at $1.00 per share, and have remaining terms of approximately 4.47 years. 52,500 of the warrants were exercised during nine months ended September 30, 2012 through a cashless exercise, for issuance of 42,356 shares of common stock.

During the nine months ended September 30, 2012, the Company issued warrants to purchase 21,347,182 shares of its Common stock. These warrants are immediately exercisable at $1.00 per share, and have remaining terms of approximately 4.42 years. 1,768,475 of the warrants were exercised for cash proceeds of $1,768,475 during the nine months ended September 30, 2012. These warrants were derivative liabilities and were valued at the settlement date. The warrant liability was reduced to equity at the fair value on the settlement date. See Note 2.

Additionally, during the three months ended September 30, 2012 the Company entered into a 6 month agreement with a consultant for services. In connection with the agreement, the Company issued 100,000 warrants to purchase common stock, at a price of $1.70, to be earned over 6 months, with a two year life. The fair value of the warrants was estimated to be approximately $73,000. These warrants were classified as equity instruments because they do not contain any anti-dilution provisions. The Black-Scholes model, using a volatility of 79.8% and risk free factor of 0.24%, was used to determine the value. The value is being amortized over the term of the agreement. During the three and nine months ended September 30, 2012, the Company recognized approximately $36,100 of expense related to these services.

The following table summarizes warrant activity for the nine months ended September 30, 2012:

	Warrants	Weighted-Average Exercise Price
Balance at December 31, 2011	2,909,750	$ 1.00
Granted	21,447,182	$ 1.00
Expired / Canceled	—	$ —
Exercised	(1,820,975)	$ 1.00
Balance at September 30, 2012	22,535,957	$ 1.00

Common stock reserved for future issuance

Common stock reserved for future issuance consisted of the following at September 30, 2012:

Common stock warrants outstanding	22,535,957
Common stock options outstanding under the 2008 Plan	672,192
Common stock options outstanding under the 2012 Plan	1,726,561
Total	24,934,710

5. Commitments and Contingencies

Operating leases

The Company leases office and laboratory space under non-cancelable operating leases. The Company records rent expense on a straight-line basis over the life of the lease and records the excess of expense over the amounts paid as deferred rent. Deferred rent is included in accrued expenses in the condensed balance sheets.

Rent expense was approximately $129,500 and $241,600 and $31,900 and $85,700 for the three and nine months ended September 30, 2012 and 2011, respectively. Rent expense was approximately $566,300 for the period from April 19, 2007 (inception) through September 30, 2012.

The Company entered into a new facilities lease at 6275 Nancy Ridge Drive, San Diego, CA 92121. The lease was signed on February 27, 2012 with occupancy as of July 15, 2012. The base rent under the lease is approximately $38,800 per month with 3% annual escalators. The lease term is 48 months with an option for the Company to extend the lease at the end of the lease term.

Future minimum rental payments required under operating leases that have initial or remaining non-cancelable lease terms in excess of one year as of September 30, 2012, are as follows:

2012	$ 3,619
2013	383,346
2014	480,644
2015	476,724
2016	271,932
Total	$ 1,616,265

During the three months ended September 30, 2012, the Company entered into an agreement to lease certain laboratory equipment under a non-cancelable capital lease, which is included in fixed assets as follows:

September 30, 2012	
Lab equipment	$ 34,220
Less accumulated depreciation	(1,711)
Net book value	$ 32,509

Depreciation expense related to the capital lease obligation was approximately $1,700, for the three and nine months ended September 30, 2012.

Future minimum capital lease payments at September 30, 2012 are as follows:

Year Ending December 31,	
2012	$ 2,844
2013	10,824
2014	10,824
2015	6,856
2016	—
Total minimum lease payments	31,348
Amount representing interest	(1,791)
Present value of minimum lease payments	29,557
Less current portion	(9,845)
Long term portion	19,712

6. Concentrations

Credit risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of temporary cash investments. The Company maintains cash balances at various financial institutions primarily located in San Diego. Accounts at these institutions are secured by the Federal Deposit Insurance Corporation. At times, balances may exceed federally insured limits. The Company has not experienced losses in such accounts, and management believes that the Company is not exposed to any significant credit risk with respect to its cash and cash equivalents.

7. Subsequent Event

Subsequent to September 30, 2012, the Company granted an aggregate of 363,500 incentive stock options to employees and Board of Director members. The vesting is over four years for employees and three years for Board members.

Subsequent to September 30, 2012, the Company issued 300,000 warrants to two Consultants for Services to be provided.

ELECTION TO PARTICIPATE AND EXERCISE WARRANT PURSUANT TO
OFFER TO AMEND AND EXERCISE WARRANTS TO PURCHASE COMMON STOCK
OF ORGANOVO HOLDINGS, INC.
DATED NOVEMBER 16, 2012
(as amended December 4, 2012)

To: Organovo Holdings, Inc.
6275 Nancy Ridge Drive
San Diego, CA 92121
Attn: Corporate Secretary
Fax. No. 858.550.9948

Pursuant to the terms and subject to the conditions of the Offer to Amend and Exercise Warrants to Purchase Common Stock of Organovo Holdings, Inc. dated November 16, 2012, as may be amended or supplemented from time to time (the "Offer to Amend and Exercise"), I hereby agree and elect to amend and exercise some or all of my Original Warrants (as defined in the Offer to Amend and Exercise) at the reduced amendment price of $0.80 as set forth in Table 1 below. Capitalized terms not otherwise defined in this Election to Participate and Exercise Warrant shall have the meanings ascribed to them in the Offer to Amend and Exercise.

TABLE 1
NUMBER OF ORIGINAL WARRANTS TO BE AMENDED AND EXERCISED

A	**B**
Number of "Bridge Warrants" Being Amended and Exercised	**Exercise Price Per Share**
_____	$0.80
A	**B**
Number of "Investor Warrants" Being Amended and Exercised	**Exercise Price Per Share**
_____	$0.80
A	**B**
Number of "Private Warrants" Being Amended and Exercised	**Exercise Price Per Share**
_____	$0.80

EXERCISE PRICE AND STOCK CERTIFICATES

The undersigned hereby irrevocably elects to exercise and to purchase the number of shares of Organovo Holdings, Inc. common stock issuable upon exercise of Original Warrants listed in Table 1 above and delivery of:

$ (in cash, which is the product of $0.80 multiplied by the number of Original Warrants being amended and exercised hereunder as set forth in Table 1 above).

The undersigned requests that certificates for such shares be issued in the name of:

_____

(Please print name, address and social security or federal employer identification number (if applicable))

_____

_____

If the shares issuable upon this exercise are not all of the shares issuable for all of the holder's Original Warrants, the undersigned requests that a new Original Warrant evidencing the rights not so exercised be issued in the name of and delivered to:

_____

(Please print name, address and social security or federal employer identification number (if applicable))

_____

_____

Name of Holder (print): _____
(Signature): _____
(By:) _____
(Title:) _____
Dated: _____

ACKNOWLEDGMENTS AND REPRESENTATIONS AND WARRANTIES

I understand and acknowledge that:

(1) To accept the Offer to Amend and Exercise I must comply with the "**Instructions for Delivery**" (attached hereto).

(2) If I elect to participate, I hereby agree and acknowledge that my Original Warrants described in Table 1 above shall be deemed automatically amended as applicable, as set forth in Exhibit A-1 attached hereto, with respect to the "Bridge Warrants," as set forth in Exhibit A-2 attached hereto, with respect to the "Investor Warrants," and as set forth in Exhibit A-3 attached hereto, with respect to the "Private Warrants," without any further action or signature required by me or the Company.

(3) If I elect to participate, I understand that I am automatically and contemporaneously exercising my Amended Warrants.

(4) If I elect not to participate, my Original Warrants will remain unmodified and will expire in accordance with their terms.

(5) If I choose to execute and deliver this Election to Participate and Exercise Warrant along with the aggregate exercise price applicable with respect to my Amended Warrants to the Company, the Company will place the aggregate exercise price funds into a separate non-interest bearing account until the Expiration Date of the Offer to Amend and Exercise. If I have decided to amend and exercise less than my total number of Original Warrants, the Company will send me a new Original Warrant for the amount of Original Warrants I excluded from this Election to Participate and Exercise Warrant.

(6) By amending and exercising the Original Warrants pursuant to the procedure described in the Offer to Amend and Exercise and in the instructions to this Election to Participate and Exercise Warrant, I accept the terms and conditions of the Offer to Amend and Exercise.

(7) The Company has advised me to consult with my own legal, tax and accounting advisors as to the consequences of participating or not participating in the Offer to Amend and Exercise.

(8) I have accurately completed and executed the Accredited Investor Questionnaire. The Offer to Amend and Exercise is not being offered to holders in any jurisdiction in which the offering or acceptance of participation in the Offer to Amend and Exercise would not be in compliance with the laws of such jurisdiction. In addition, the Company will not accept any Election to Participate and Exercise Warrant from or on behalf of, any Original Warrant holders if the Company determines that a valid securities exemption is not available for the Offer to Amend and Exercise under the Securities Act.

(9) All authority herein conferred or agreed to be conferred shall not be affected by, and shall survive, my death or incapacity, and all of my obligations hereunder shall be binding upon my heirs, personal representatives, successors and assigns. Except as stated in the Offer to Amend and Exercise, this amendment is irrevocable.

(10) Upon request, I will execute and deliver any additional documents deemed by the Company to be necessary or desirable to complete the amendment and exercise of the Original Warrants pursuant to the Offer to Amend and Exercise.

I hereby represent and warrant that:

(1) I have the full power and authority to execute, deliver and perform any obligations hereunder and that, when and to the extent the Original Warrants are accepted for amendment and exercise by the Company, the Original Warrants will be free and clear of all security interests, liens, restrictions, charges, encumbrances, conditional sales agreements or other obligations relating to the sale or transfer thereof and the Original Warrants will not be subject to any adverse claims.

(2) I (either alone or with my purchaser representative) have such knowledge and experience in financial and business matters that I am capable of evaluating the merits and risks of investment in the Amended Warrants and the shares of common stock issuable upon the exercise of the Amended Warrants.

(3) I have had the opportunity to review the current business prospects, financial condition and operating history of the Company as set forth or incorporated by reference in the Offer to Amend and Exercise; and

(4) I have had the opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the Offer to Amend and Exercise and I have received all the information I consider necessary or appropriate for deciding whether to accept the Offer to Amend and Exercise.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

If you execute the election above to amend and exercise your Original Warrants and return this signature page, your Original Warrants will be deemed amended and exercised in accordance with the terms and conditions of the applicable Amended Warrant.

You must complete and sign the following exactly as your name appears on your Original Warrants. If the signature is by a trustee, executor, administrator, guardian, attorney-in-fact or another person acting in a fiduciary or representative capacity, please set forth the signatory's full title and include with this Election to Participate and Exercise Warrant proper evidence of the authority of such person to act in such capacity.

Date: _____

By: _____
(Signature)

_____
(Print name)

_____
(Title, if applicable)

_____

Address: _____

_____

Telephone: _____

Fax: _____

Tax ID/SSN: _____

INSTRUCTIONS FOR DELIVERY

Your right to participate in the Offer to Amend and Exercise will automatically expire if you do not properly elect to participate on or before the Expiration Date of December 17, 2012, as may be extended in the Company's sole discretion. The Company will not accept any alternative or contingent amendments. By execution this Election to Participate and Exercise Warrant, you waive any right to receive any notice of the acceptance of the Amended Warrants, except as provided in the Offer to Amend and Exercise. To effect your acceptance of the Offer to Amend and Exercise you must:

(1) Complete, sign and return this Election to Participate and Exercise Warrant.

(2) Tender your Original Warrants or, if you are unable to locate your Original Warrant, complete and sign an Affidavit of Lost Warrant (attached hereto) for each Original Warrant to be exercised.

(3) Complete, sign and return the Accredited Investor Questionnaire (attached hereto).

(4) Pay the exercise price applicable to your Amended Warrant ($0.80 x number of shares to be exercised) by check or by wire transfer pursuant to the wire transfer instructions set forth below.

The Election to Participate and Exercise Warrant, Original Warrants (and/or Affidavit of Lost Warrant), Accredited Investor Questionnaire along with the exercise price must be received at the address below, on or before the Expiration Date of 5:00 pm (Pacific time) on December 17, 2012, as may be extended by the Company in its sole discretion.

ADDRESS:

Organovo Holdings, Inc.
6275 Nancy Ridge Drive
San Diego, CA 92121
Attn: Corporate Secretary
Tel. No. (858) 550-9994
Fax No. (858) 550-9948

WIRE TRANSFER INSTRUCTIONS FOR EXERCISE OF AMENDED WARRANTS:

Domestic:
Wells Fargo Bank, N.A.
420 Montgomery Street
San Francisco, CA 94104
ABA Routing No. 121000248
Checking Account No. 5357976199

[_____]
[NAME OF SENDER]

International:
Wells Fargo Bank, N.A.
420 Montgomery Street
San Francisco, CA 94104
ABA Routing No. 121000248
Checking Account No. 5357976199
SWIFT Code: WFBIUS6WFFX (for funds from Int'l)

[_____]
[NAME OF SENDER]

Delivery to an address other than as set forth above will not constitute a valid delivery.

****

AFFIDAVIT OF LOSS AND INDEMNIFICATION AGREEMENT

The Holder (as defined below) hereby represents, warrants and agrees as follows:

1. The following described instrument of Organovo Holdings, Inc., a Delaware corporation (the "**Company**") was lost or stolen:

Common Stock Purchase Warrant No._____ to purchase _____ shares of common stock of Company, dated _____, _____ (the "**Original Warrant**"), and registered in the name of _____ ("**Holder**");

2. Holder is the sole and unconditional record owner of the Original Warrant.

3. That neither the Original Warrant nor any interests therein have been sold, assigned, endorsed, transferred, deposited under any agreement, hypothecated, pledged, or disposed of in any manner by or on behalf of Holder; that neither Holder nor anyone on Holder's behalf has signed any power of attorney, any stock power or any other assignment or authorization respecting the Original Warrant; and that no person, firm or corporation has any right, title, claim, equity or interest in, to or respecting the Original Warrant, except Holder as the sole owner.

4. That this Affidavit of Loss and Indemnification Agreement (the "**Affidavit**") is made for the purpose of inducing the Company to accept the Holder's Original Warrant in connection with the Holder's election to participate in the Company's Offer to Amend and Exercise, dated November 16, 2012, as amended or supplemented and to exercise such Original Warrant (the "**Offer**").

5. Holder hereby agrees to immediately surrender the Original Warrant to the Company for cancellation without consideration should it at any time come into the possession or control of Holder.

6. To induce the Company to accept this Affidavit in place of the lost Original Warrant in connection with Holder's acceptance of the Offer, Holder and its successors and assigns shall at all times indemnify and hold harmless the Company and its directors, officers, agents, successors and assigns from and against any and all claims, actions and suits, whether groundless or otherwise, and from and against any and all losses, damages, judgments, costs, charges, counsel fees, payments, expenses and liabilities whatsoever, which any of such indemnitees at any time shall or may sustain or incur (a) by reason of the issuance of a replacement warrant, if any or (b) by reason of any claim which may be made in respect of the Original Warrant, or (c) by reason of any payment, transfer, exchange, delivery or other act which any indemnitee hereunder may make or do in respect of the Original Warrant or a replacement warrant, if any, or any shares of common stock issued upon exercise thereof whether made or done through accident, oversight or neglect, or whether made or done upon presentation thereof without contesting, inquiring into or litigating the propriety of such payment, transfer, exchange, delivery or other act, or (d) by reason of any other matter or thing arising out of the recognition of the aforesaid request of Holder for the issuance of the Original Warrant or a replacement warrant, if any.

7. It is understood and agreed that in case the Original Warrant shall be recovered by anyone, then this Affidavit may be immediately enforced. This Affidavit shall be deemed a continuing obligation and successive recoveries may be had thereon for the various matters in respect of which any indemnitee shall from time to time become entitled to be indemnified.

This Affidavit shall be governed by the laws of the State of New York as such laws are applied to contracts between California residents entered into and to be performed entirely in New York.

Dated: _____, 2012.

_____
HOLDER

_____
(Signature)

_____
(Printed Name)

_____
(Title, if Holder is not a natural person)

ACCREDITED INVESTOR QUESTIONNAIRE

The undersigned understands that the purpose of this Questionnaire is to permit Organovo Holdings, Inc. ("**Organovo**") to determine whether the undersigned is an "accredited investor" as such term is defined in Rule 501(a) promulgated under the Securities Act of 1933, as amended (the "**Act**"). The undersigned represents to you that (i) the information contained herein is complete and accurate and may be relied upon by Organovo, and (ii) the undersigned will notify Organovo immediately of any change in any of such information.

All information furnished is for the sole use of Organovo and its counsel and will be held in confidence by Organovo and its counsel, except that this Questionnaire may be furnished to such parties as Organovo deems desirable to establish compliance with federal or state securities laws.

A. For Individuals:

The undersigned individual is an "Accredited Investor" for one or more of the following reasons (check all that apply):

☐ The undersigned is an individual (not a partnership, corporation, etc.) whose individual net worth, or joint net worth with his or her spouse, presently exceeds $1,000,000. For purposes of the foregoing, "net worth" shall be deemed to include all of your assets, liquid or illiquid (including such items as furnishings, automobile and restricted securities, but excluding the value of your primary residence) minus any liabilities (including such items as loans and other debts and liabilities, but excluding any mortgage on your primary residence to the extent that it does not exceed the fair market value of such residence).

☐ The undersigned is an individual (not a partnership, corporation, etc.) who had (i) an individual income in excess of $200,000 or (ii) joint income together with their spouse in excess of $300,000, in each of the two most recent years and reasonably expect to reach the same income level in the current year. For purposes of the foregoing, "income" is not limited to "adjusted gross income" as that term is defined for federal income tax purposes, but rather includes certain items of income which are deducted in computing "adjusted gross income". For investors who are salaried employees, the gross salary of such investor, minus any significant expenses personally incurred by such investor in connection with earning the salary, plus any income from any other source including unearned income, is a fair measure of "income" for purposes of this question. For investors who are self-employed, "income" is generally construed to mean total revenues received during the calendar year minus significant expenses incurred in connection with earning such revenues.

☐ The undersigned is a director, executive officer, or general partner of the issuer of the securities being offered or sold, or any director, executive officer, or general partner of a general partner of that issuer.

The undersigned individual is not an "Accredited Investor" because none of the above apply.

☐

B. For Entities:

The undersigned is an "Accredited Investor" because the undersigned falls within at least one of the following categories (Check all appropriate lines):

☐ (i) a bank as defined in Section 3(a)(2) of the Securities Act of 1933, as amended (the "Securities Act") or a savings and loan association or other institution as defined in Section 3(a)(5)(A) of the Act whether acting in its individual or fiduciary capacity;

☐ (ii) a broker-dealer registered pursuant to Section 15 of the Securities Exchange Act of 1934, as amended;

☐ (iii) an insurance company as defined in Section 2(a)(13) of the Act;

☐ (iv) an investment company registered under the Investment Company Act of 1940, as amended (the "Investment Company Act") or a business development company as defined in Section 2(a)(48) of the Investment Act;

☐ (v) a Small Business Investment Company licensed by the U.S. Small Business Investment Act of 1958, as amended;

☐ (vi) a plan established and maintained by a state, its political subdivisions, or any agency or instrumentality of a state or its political subdivisions, for the benefit of its employees, where such plan has total assets in excess of $5,000,000;

☐ (vii) an employee benefit plan within the meaning of Title I of the Employee Retirement Income Security Act of 1974, as amended (the "Employee Act"), where the investment decision is made by a plan fiduciary, as defined in Section 3(21) of the Employee Act, which is either a bank, savings and loan association, insurance company, or registered investment adviser, or an employee benefit plan that has total assets in excess of $5,000,000 or a self-directed plan the investment decisions of which are made solely by persons that are accredited investors.

☐ (viii) a private business development company, as defined in Section 202(a)(22) of the Investment Advisers Act of 1940 as amended;

☐ (ix) an organization described in Section 501(c)(3) of the Internal Revenue Code, a corporation, a Massachusetts or similar business trust, or a partnership, not formed for the specific purpose of acquiring the securities offered, with total assets in excess of $5,000,000;

☐ (x) a trust, with total assets in excess of $5,000,000, not formed for the specific purpose of acquiring the securities offered, whose purchase is directed by a "sophisticated" person, who has such knowledge and experience in financial and business matters that he is capable of evaluating the merits and risks of the prospective investment;

☐ (xi) an entity in which all of the equity investors are persons or entities described above.

☐ The undersigned is an entity all the equity owners of which are "accredited investors" within one or more of the above categories. If relying upon this Category alone, each equity owner must complete a separate copy of this Questionnaire. (Describe the entity below.)

The undersigned entity is not an "Accredited Investor" because none of the above apply.

☐

The foregoing representations are true and accurate as of the date hereof.

Dated: _____, 2012

_____
Name of Investor

_____
Signature

_____
Printed Name

_____
Title (if applicable)

_____
Name of joint investor or other person whose signature is required

_____
Signature

_____
Title (if applicable)

NOTICE OF WITHDRAWAL OF AMENDMENT OF ORIGINAL WARRANTS AND EXERCISE OF AMENDED WARRANTS
PURSUANT TO THE OFFER TO AMEND AND EXERCISE WARRANTS TO PURCHASE COMMON STOCK DATED NOVEMBER 16, 2012
(as amended December 4, 2012)

THE OFFER AND WITHDRAWAL RIGHTS EXPIRE AT 5:00 P.M. (PDT), ON DECEMBER 17, 2012, UNLESS THE OFFER IS EXTENDED

To: Organovo Holdings, Inc. 6275 Nancy Ridge Drive San Diego, CA 92121 Attn: Corporate Secretary Fax. No. 858.550.9948

DELIVERY OF THIS NOTICE OF WITHDRAWAL TO AN ADDRESS OTHER THAN AS SET FORTH ABOVE OR TRANSMISSION VIA FACSIMILE TO A NUMBER OTHER THAN AS SET FORTH ABOVE WILL NOT CONSTITUTE A VALID DELIVERY.

I previously received a copy of Organovo Holdings, Inc. (the "**Company**")'s Offer to Amend and Exercise Warrants to Purchase Common Stock, dated November 16, 2012, and any amendments thereto (the "**Offer to Amend and Exercise**"). I elected to participate in the Offer to Amend and Exercise, delivered an executed Election to Participate and Exercise Warrants.

I hereby irrevocably withdraw my previously submitted Election to Participate and Exercise Warrants and reject the Offer to Amend and Exercise.

I understand that by rejecting the Offer to Amend and Exercise, my Original Warrants will not be amended or exercised pursuant to the terms of the Offer to Amend and Exercise. I waive any right to receive any notice of the acceptance of this Notice of Withdrawal.

All capitalized terms used but not defined herein shall have the meanings ascribed to the Offer to Amend and Exercise.

Date: , 2012

_____
(Signature of Warrant Holder)

_____
(Name of Signatory)

_____
(Title, if Warrant Holder is not a natural person)

Telephone: _____

Fax: _____

All questions as to the validity, form, eligibility (including time of receipt) and acceptance of any Notice of Withdrawal will be determined by the Company in its discretion, which determination shall be final and binding

on all parties. The Company reserves the right to reject any or all Notices of Withdrawal that the Company determines not to be in proper form or the acceptance of which may, in the opinion of the Company's counsel, be unlawful. The Company also reserves the right to waive any of the conditions of the Offer to Amend and Exercise and any defect or irregularity in the Notice of Withdrawal, and the Company's interpretation of the terms of the Offer to Amend and Exercise (including these instructions) will be final and binding on all parties. No Notice of Withdrawal will be deemed to be properly made until all defects and irregularities have been cured or waived. Unless waived, any defects or irregularities in connection with any Notice of Withdrawal must be cured within such time as the Company shall determine. Neither the Company nor any other person is or will be obligated to give notice of any defects or irregularities in any Notice of Withdrawal, and no person will incur any liability for failure to give any such notice.

IMPORTANT: THIS NOTICE OF WITHDRAWAL MUST BE RECEIVED BY THE COMPANY ON OR PRIOR TO THE TIME AND DATE OF EXPIRATION OF THE OFFER TO AMEND AND EXERCISE AT 5:00 P.M. (PACIFIC TIME) ON DECEMBER 17, 2012, AS MAY BE EXTENDED BY THE COMPANY IN ITS SOLE DISCRETION. HOWEVER, IF WE HAVE NOT ACCEPTED YOUR TENDERED ORIGINAL WARRANTS AND OTHER ACCEPTANCE AND EXERCISE DOCUMENTS BY JANUARY 16, 2013, WHICH IS THE FORTIETH BUSINESS DAY FROM THE COMMENCEMENT OF THE OFFER TO AMEND AND EXERCISE, YOU MAY CHANGE YOUR MIND AND SUBMIT A NOTICE OF WITHDRAWAL TO US AFTER JANUARY 16, 2013.

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EXHIBIT A-1

FIRST AMENDMENT TO
WARRANT TO PURCHASE COMMON STOCK

This First Amendment (the "**Amendment**") to Warrant to Purchase Common Stock (the "**Warrant**"), is made and entered into effective as of November 16, 2012 (the "**Effective Date**"), by and between Organovo Holdings, Inc., a Delaware corporation (the "**Company**") and the undersigned (the "**Holder**"). Capitalized terms used but not otherwise defined herein shall have the same meanings as set forth in the Warrant.

WHEREAS, in connection with the Company's tender offer with respect to the amendment and exercise of certain issued and outstanding warrants to purchase shares of common stock of the Company, including the Warrant, as set forth in that certain Offer to Amend and Exercise Warrants to Purchase Common Stock of Ogranovo Holdings, Inc. dated November 16, 2012, a copy of which has been delivered to the Holder (the "***Offer to Amend and Exercise***"), the Company and the Holder desire to amend the Warrant as set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, the parties hereby agree as follows:

1. Expiration Date. The Expiration Date contained in the first unnumbered paragraph of the Warrant is hereby amended and restated to be 5:00 p.m., Pacific time, on December 17, 2012, as may be extended by the Company in its sole discretion. In addition, the reference to "Void After: [ ], 2016" in the heading of the Warrant shall be deleted in its entirety.

2. Exercise Price. The Exercise Price contained in the second unnumbered paragraph of the Warrant is hereby amended and restated to be $0.80 per share of Common Stock.

3. Exercise Period. Section 1(a) of the Warrant is hereby amended and restated in its entirety as follows:

"(a) Exercise Period. The Holder may exercise this Warrant in whole or in part on any Business Day on or before 5:00 P.M., Pacific time, on the Expiration Date, at which time this Warrant shall become void and of no value."

4. Exercise Procedures. Section 1(b) of the Warrant is hereby amended and restated in its entirety as follows:

"(b) Exercise Procedures.

(i) The purchase rights represented by this Warrant shall be deemed exercised by delivery before the Expiration Date of all of the following: (i) a signed copy of the Election to Participate and Exercise Warrant (as defined in that certain Offer to Amend and Exercise Warrants to Purchase Common Stock of Ogranovo Holdings, Inc. dated November 16, 2012 (the "**Offer to Amend and Exercise**"), (ii) a signed copy of an Accredited Investor Questionnaire (as defined in the Offer to Amend and Exercise), (iii) the original copy of this Warrant (or an Affidavit of Lost Warrant in the form required by the Offer to Amend and Exercise) for cancellation, and (iv) cash in the amount equal to $0.80 per share multiplied by the number of Warrant Shares the Holder elects to purchase (collectively, the "**Acceptance and Exercise Documents**"). The cash may be tendered in the form of a check payable to Organovo Holdings, Inc. or by wire transfer to the Company's account as set forth in the Election to Participate and Exercise Warrant. Each of the Acceptance and Exercise Documents must be properly delivered, before the Expiration Date to: Organovo Holdings, Inc., 6275 Nancy Ridge Drive, San Diego, CA 92121, Attn: Corporate Secretary. This Amendment shall be deemed ineffective and null and void if all of the Acceptance and Exercise Documents are not delivered in accordance herewith prior to the Expiration Date.

(ii) Upon the exercise of this Warrant in compliance with the provisions of Section 1(b)(i), as promptly as reasonably practicable, the Company shall issue and deliver to the person or persons entitled to receive the same a certificate or certificates for that number of Warrant Shares issuable upon such exercise, but not later than prior to the expiration of the Lock-Up Period (as defined in Section 19 hereof). In the event that the rights under this Warrant are exercised in part and have not expired, the Company shall execute and deliver a new Warrant reflecting the number of Warrant Shares that remain subject to this Warrant.

(iii) No fractional shares or scrip representing fractional shares shall be issued upon the exercise of the rights under this Warrant. In lieu of such fractional share to which the Holder would otherwise be entitled, the Company shall make a cash payment equal to the Exercise Price multiplied by such fraction.

5. Partial Exercise. Section 1(c) of the Warrant is hereby deleted in its entirety.

6. Adjustment of Exercise Price Upon Issuance of Additional Shares of Common Stock. Section 3(d) of the Warrant is hereby deleted in its entirety.

7. Lock-Up Period. The Warrant is hereby amended by adding a new Section 19 as follows:

"**19. Lock-Up Period.**

(a) Lock-Up Restrictions. Holder agrees not to sell, make any Short Sale (as defined below) of, loan, grant any option for the purchase of, or otherwise dispose of any of the Shares issuable upon the exercise of this Warrant without the prior written consent of the Company for a period twenty (20) days after the Expiration Date (the "***Lock-Up Period***"). For the avoidance of doubt, Holder may transfer during the Lock-Up Period any such Shares to any of its Affiliates provided that such Affiliate(s) agree to be bound by the same lock up restrictions.

(b) ***Stop-Transfer Instructions***. In order to enforce this Section 19, the Company may impose stop-transfer instructions with respect to the Shares of Holder (and the shares of every other Holder subject to the restrictions in this Section 19)."

8. Short Sales. The Warrant is hereby amended by adding a new Section 20 as follows:

"20. Short Sales. Until the expiration of the Lock-Up Period, other than with respect to the transactions contemplated herein, neither the Holder nor any Affiliate of such Holder which (x) had knowledge of the transactions contemplated hereby, (y) has or shares discretion relating to such Holder's investments or trading or information concerning such Holder's investments, including in respect of the shares and warrants, and (z) is subject to such Holder's review or input concerning such Affiliate's investments or trading (collectively, "***Trading Affiliates***") will directly or indirectly, alone or with any individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind (collectively "***Persons***"), acting on behalf of or pursuant to any understanding with such Holder or Trading Affiliate, effect or agree to effect any Short Sales (as defined below) involving the Company's shares of common stock or other securities of the Company. Notwithstanding the foregoing, in the case of a Holder and/or Trading Affiliate that is, individually or collectively, a multi-managed investment bank or vehicle whereby separate portfolio managers manage separate portions of such Holder's or Trading Affiliate's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Holder's or Trading Affiliate's assets, the covenants set forth above shall apply only with respect to the portion of assets managed by the portfolio manager that have knowledge about the transactions contemplated by this Warrant. For purposes hereof, "***Short Sale***" shall include, without limitation, all "short sales" as defined in Rule 200 promulgated under Regulation SHO under the Exchange Act, whether or not against the box, and all types of direct and indirect stock pledges, forward sale contracts, options, puts, calls, short sales, swaps, "put equivalent positions" (as defined in Rule 16a-1(h) under the Exchange Act) or similar arrangements (including on a total return basis), or sales or other transactions through non-U.S. broker dealers or foreign regulated brokers."

9. Necessary Acts. Each party to this Amendment hereby agrees to perform any further acts and to execute and deliver any further documents that may be necessary or required to carry out the intent and provisions of this Amendment and the transactions contemplated hereby.

10. Governing Law. This Amendment shall be governed, construed and interpreted in accordance with the laws of the State of New York, without giving effect to principles of conflicts of law.

11. Continued Validity. Except as otherwise expressly provided herein, the Warrant shall remain in full force and effect.

12. Approval of Amendment; No Execution Required. **By Holder's execution and delivery of an Election to Participate and Exercise Warrant together with the other Acceptance and Exercise Documents in accordance with the terms of the Offer to Amend and Exercise, each of the Company and the Holder shall be deemed to have authorized, approved and executed this Amendment.**

EXHIBIT A-2

FIRST AMENDMENT TO
WARRANT TO PURCHASE COMMON STOCK

This First Amendment (the "**Amendment**") to Warrant to Purchase Common Stock (the "**Warrant**"), is made and entered into effective as of November 16, 2012 (the "**Effective Date**"), by and between Organovo Holdings, Inc., a Delaware corporation (the "**Company**") and the undersigned (the "**Holder**"). Capitalized terms used but not otherwise defined herein shall have the same meanings as set forth in the Warrant.

WHEREAS, in connection with the Company's tender offer with respect to the amendment and exercise of certain issued and outstanding warrants to purchase shares of common stock of the Company, including the Warrant, as set forth in that certain Offer to Amend and Exercise Warrants to Purchase Common Stock of Ogranovo Holdings, Inc. dated November 16, 2012, a copy of which has been delivered to the Holder (the "***Offer to Amend and Exercise***"), the Company and the Holder desire to amend the Warrant as set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, the parties hereby agree as follows:

1. Expiration Date. The Expiration Date contained in the first unnumbered paragraph of the Warrant is hereby amended and restated to be 5:00 p.m., Pacific time, on December 17, 2012, as may be extended by the Company in its sole discretion. In addition, the reference to "Void After: [ ], 201 " in the heading of the Warrant shall be deleted in its entirety.

2. Exercise Price. The Exercise Price contained in the second unnumbered paragraph of the Warrant is hereby amended and restated to be $0.80 per share of Common Stock.

3. Exercise Period. Section 1(a) of the Warrant is hereby amended and restated in its entirety as follows:

"(a) Exercise Period. The Holder may exercise this Warrant in whole or in part on any Business Day on or before 5:00 P.M., Pacific time, on the Expiration Date, at which time this Warrant shall become void and of no value."

4. Exercise Procedures. Section 1(b) of the Warrant is hereby amended and restated in its entirety as follows:

"(b) Exercise Procedures.

(i) The purchase rights represented by this Warrant shall be deemed exercised by delivery before the Expiration Date of all of the following: (i) a signed copy of the Election to Participate and Exercise Warrant (as defined in that certain Offer to Amend and Exercise Warrants to Purchase Common Stock of Ogranovo Holdings, Inc. dated November 16, 2012 (the "**Offer to Amend and Exercise**"), (ii) a signed copy of an Accredited Investor Questionnaire (as defined in the Offer to Amend and Exercise), (iii) the original copy of this Warrant (or an Affidavit of Lost Warrant in the form required by the Offer to Amend and Exercise) for cancellation, and (iv) cash in the amount equal to $0.80 per share multiplied by the number of Warrant Shares the Holder elects to purchase (collectively, the "**Acceptance and Exercise Documents**"). The cash may be tendered in the form of a check payable to Organovo Holdings, Inc. or by wire transfer to the Company's account as set forth in the Election to Participate and Exercise Warrant. Each of the Acceptance and Exercise Documents must be properly delivered, before the Expiration Date to: Organovo Holdings, Inc., 6275 Nancy Ridge Drive, San Diego, CA 92121, Attn: Corporate Secretary. This Amendment shall be deemed ineffective and null and void if all of the Acceptance and Exercise Documents are not delivered in accordance herewith prior to the Expiration Date.

(ii) Upon the exercise of this Warrant in compliance with the provisions of Section 1(b)(i), as promptly as reasonably practicable, the Company shall issue and deliver to the person or persons entitled to receive the same a certificate or certificates for that number of Warrant Shares issuable upon such exercise, but not later than five (5) business days prior to the expiration of the Lock-Up Period (as defined in Section 20 hereof). In the event that the rights under this Warrant are exercised in part and have not expired, the Company shall execute and deliver a new Warrant reflecting the number of Warrant Shares that remain subject to this Warrant.

(iii) No fractional shares or scrip representing fractional shares shall be issued upon the exercise of the rights under this Warrant. In lieu of such fractional share to which the Holder would otherwise be entitled, the Company shall make a cash payment equal to the Exercise Price multiplied by such fraction.

5. Partial Exercise. Section 1(c) of the Warrant is hereby deleted in its entirety.

6. Adjustment of Exercise Price Upon Issuance of Additional Shares of Common Stock. Section 3(d) of the Warrant is hereby deleted in its entirety.

7. Lock-Up Period. The Warrant is hereby amended by adding a new Section 20 as follows:

"**20. Lock-Up Period.**

(a) Lock-Up Restrictions. Holder agrees not to sell, make any Short Sale (as defined below) of, loan, grant any option for the purchase of, or otherwise dispose of any of the Shares issuable upon the exercise of this Warrant without the prior written consent of the Company for a period of twenty (20) days after the Expiration Date (the "***Lock-Up Period***"). For the avoidance of doubt, Holder may transfer during the Lock-Up Period any such Shares to any of its Affiliates provided that such Affiliate(s) agree to be bound by the same lock up restrictions.

(b) ***Stop-Transfer Instructions***. In order to enforce this Section 20, the Company may impose stop-transfer instructions with respect to the Shares of Holder (and the shares of every other Holder subject to the restrictions in this Section 20)."

8. Short Sales. The Warrant is hereby amended by adding a new Section 21 as follows:

"21. Short Sales. Until the expiration of the Lock-Up Period, other than with respect to the transactions contemplated herein, neither the Holder nor any Affiliate of such Holder which (x) had knowledge of the transactions contemplated hereby, (y) has or shares discretion relating to such Holder's investments or trading or information concerning such Holder's investments, including in respect of the shares and warrants, and (z) is subject to such Holder's review or input concerning such Affiliate's investments or trading (collectively, "***Trading Affiliates***") will directly or indirectly, alone or with any individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind (collectively "***Persons***"), acting on behalf of or pursuant to any understanding with such Holder or Trading Affiliate, effect or agree to effect any Short Sales (as defined below) involving the Company's shares of common stock or other securities of the Company. Notwithstanding the foregoing, in the case of a Holder and/or Trading Affiliate that is, individually or collectively, a multi-managed investment bank or vehicle whereby separate portfolio managers manage separate portions of such Holder's or Trading Affiliate's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Holder's or Trading Affiliate's assets, the covenants set forth above shall apply only with respect to the portion of assets managed by the portfolio manager that have knowledge about the transactions contemplated by this Warrant. For purposes hereof, "***Short Sale***" shall include, without limitation, all "short sales" as defined in Rule 200 promulgated under Regulation SHO under the Exchange Act, whether or not against the box, and all types of direct and indirect stock pledges, forward sale contracts, options, puts, calls, short sales, swaps, "put equivalent

positions" (as defined in Rule 16a-1(h) under the Exchange Act) or similar arrangements (including on a total return basis), or sales or other transactions through non-U.S. broker dealers or foreign regulated brokers."

9. Necessary Acts. Each party to this Amendment hereby agrees to perform any further acts and to execute and deliver any further documents that may be necessary or required to carry out the intent and provisions of this Amendment and the transactions contemplated hereby.

10. Governing Law. This Amendment shall be governed, construed and interpreted in accordance with the laws of the State of New York, without giving effect to principles of conflicts of law.

11. Continued Validity. Except as otherwise expressly provided herein, the Warrant shall remain in full force and effect.

12. Approval of Amendment; No Execution Required. **By Holder's execution and delivery of an Election to Participate and Exercise Warrant together with the other Acceptance and Exercise Documents in accordance with the terms of the Offer to Amend and Exercise, each of the Company and the Holder shall be deemed to have authorized, approved and executed this Amendment.**

EXHIBIT A-3

FIRST AMENDMENT TO
WARRANT TO PURCHASE SHARES

This First Amendment (the "***Amendment***") to Warrant to Purchase Shares (the "***Warrant***"), is made and entered into effective as of November 16, 2012 (the "***Effective Date***"), by and between Organovo Holdings, Inc., a Delaware corporation (the "***Company***") and the undersigned (the "***Holder***"). Capitalized terms used but not otherwise defined herein shall have the same meanings as set forth in the Warrant.

WHEREAS, in connection with the Company's tender offer with respect to the amendment and exercise of certain issued and outstanding warrants to purchase shares of common stock of the Company, including the Warrant, as set forth in that certain Offer to Amend and Exercise Warrants to Purchase Common Stock of Organovo Holdings, Inc. dated November 16, 2012, a copy of which has been delivered to the Holder (the "***Offer to Amend and Exercise***"), the Company and the Holder desire to amend the Warrant as set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, the parties hereby agree as follows:

1. Exercise Price. Section 1(c) of the Warrant is hereby amended and restated in its entirety as follows:

"(c) ***Exercise Price***. The exercise price per Share shall be $0.80 per Share, subject to adjustment pursuant hereto (the "***Exercise Price***")."

2. Exercise of the Warrant. Section 2, Exercise of the Warrant, is hereby amended and restated in its entirety as follows:

"2. Exercise of the Warrant.

(a) ***Exercise.*** The purchase rights represented by this Warrant shall be deemed exercised by delivery before the Expiration Date (as defined in Section 8 hereof) of all of the following: (i) a signed copy of the Election to Participate and Exercise Warrant (as defined in that certain Offer to Amend and Exercise Warrants to Purchase Common Stock of Organovo Holdings, Inc. dated November 16, 2012 (the "**Offer to Amend and Exercise**"), (ii) a signed copy of an Accredited Investor Questionnaire (as defined in the Offer to Amend and Exercise), (iii) the original copy of this Warrant (or an Affidavit of Lost Warrant in the form required by the Offer to Amend and Exercise) for cancellation, and (iv) cash in the amount equal to $0.80 per share multiplied by the number of Shares the Holder elects to purchase (collectively, the "**Acceptance and Exercise Documents**"). The cash may be tendered in the form of a check payable to Organovo Holdings, Inc. or by wire transfer to the Company's account as set forth in the Election to Participate and Exercise Warrant. Each of the Acceptance and Exercise Documents must be properly delivered, before the Expiration Date to: Organovo Holdings, Inc., 6275 Nancy Ridge Drive, San Diego, CA 92121, Attn: Corporate Secretary. This Amendment shall be deemed ineffective and null and void if all of the Acceptance and Exercise Documents are not delivered in accordance herewith prior to the Expiration Date.

(b) ***Stock Certificates.*** Upon the exercise of this Warrant in compliance with the provisions of this Section 2, as promptly as reasonably practicable, the Company shall issue and deliver to the person or persons entitled to receive the same a certificate or certificates for that number of Shares issuable upon such exercise, but not later than prior to the expiration of the Lock-Up Period (as defined in Section 13 hereof). In the event that the rights under this Warrant are exercised in part and have not expired, the Company shall execute and deliver a new Warrant reflecting the number of Shares that remain subject to this Warrant.

(c) ***No Fractional Shares or Scrip.*** No fractional shares or scrip representing fractional shares shall be issued upon the exercise of the rights under this Warrant. In lieu of such fractional share to which the Holder would otherwise be entitled, the Company shall make a cash payment equal to the Exercise Price multiplied by such fraction.

3. Expiration of the Warrant. Section 8 of the Warrant is hereby amended and restated in its entirety as follows:

"**8. Expiration of the Warrant.** This Warrant shall expire and shall no longer be exercisable as of 5:00 p.m., Pacific time, on December 17, 2012, as may be extended by the Company in its sole discretion (the "***Expiration Date***")."

4. Lock-Up Period. The Warrant is hereby amended by adding a new Section 13 as follows:

"**13. Lock-Up Period.**

(a) ***Lock-Up Restrictions***. Holder agrees not to sell, make any Short Sale (as defined below) of, loan, grant any option for the purchase of, or otherwise dispose of any of the Shares issuable upon the exercise of this Warrant without the prior written consent of the Company for a period of twenty (20) days after the Expiration Date (the "***Lock-Up Period***"). For the avoidance of doubt, Holder may transfer during the Lock-Up Period any such Shares to any of its Affiliates provided that such Affiliate(s) agree to be bound by the same lock up restrictions.

(b) ***Stop-Transfer Instructions***. In order to enforce this Section 13, the Company may impose stop-transfer instructions with respect to the Shares of Holder (and the shares of every other Holder subject to the restrictions in this Section 13)."

5. Short Sales. The Warrant is hereby amended by adding a new Section 14 as follows:

"**14. Short Sales**. Until the expiration of the Lock-Up Period, other than with respect to the transactions contemplated herein, neither the Holder nor any Affiliate of such Holder which (x) had knowledge of the transactions contemplated hereby, (y) has or shares discretion relating to such Holder's investments or trading or information concerning such Holder's investments, including in respect of the shares and warrants, and (z) is subject to such Holder's review or input concerning such Affiliate's investments or trading (collectively, "***Trading Affiliates***") will directly or indirectly, alone or with any individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind (collectively "***Persons***"), acting on behalf of or pursuant to any understanding with such Holder or Trading Affiliate, effect or agree to effect any Short Sales (as defined below) involving the Company's shares of common stock or other securities of the Company. Notwithstanding the foregoing, in the case of a Holder and/or Trading Affiliate that is, individually or collectively, a multi-managed investment bank or vehicle whereby separate portfolio managers manage separate portions of such Holder's or Trading Affiliate's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Holder's or Trading Affiliate's assets, the covenants set forth above shall apply only with respect to the portion of assets managed by the portfolio manager that have knowledge about the transactions contemplated by this Warrant. For purposes hereof, "***Short Sale***" shall include, without limitation, all "short sales" as defined in Rule 200 promulgated under Regulation SHO under the Exchange Act, whether or not against the box, and all types of direct and indirect stock pledges, forward sale contracts, options, puts, calls, short sales, swaps, "put equivalent positions" (as defined in Rule 16a-1(h) under the Exchange Act) or similar arrangements (including on a total return basis), or sales or other transactions through non-U.S. broker dealers or foreign regulated brokers."

6. Necessary Acts. Each party to this Amendment hereby agrees to perform any further acts and to execute and deliver any further documents that may be necessary or required to carry out the intent and provisions of this Amendment and the transactions contemplated hereby.

7. Governing Law. This Amendment shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

8. Continued Validity. Except as otherwise expressly provided herein, the Warrant shall remain in full force and effect.

9. Approval of Amendment; No Execution Required. **By Holder's execution and delivery of an Election to Participate and Exercise Warrant together with the other Acceptance and Exercise Documents in accordance with the terms of the Offer to Amend and Exercise, each of the Company and the Holder shall be deemed to have authorized, approved and executed this Amendment.**

Exhibit (a)(1)(H)

ORGANOVO HOLDINGS, INC.
SUPPLEMENTAL COMPANY INFORMATION DATED DECEMBER 4, 2012

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DESCRIPTION OF BUSINESS

Overview

We have developed and are commercializing a platform technology for the generation of three-dimensional (3D) human tissues that can be employed in drug discovery and development, biological research, and as therapeutic implants for the treatment of damaged or degenerating tissues and organs. We intend to introduce a paradigm shift in the approach to the generation of three-dimensional human tissues, by creation of constructs in 3D that have the potential to replicate native human biology. We can improve on previous technologies by moving away from monolayer 2D cell cultures and by enabling all or part of the tissues we create to be constructed solely of cells. We believe our expertise in printing small-diameter, fully cellular human blood vessels *in vitro* provides a strong foundation upon which other tissues can be built to replicate human biology and human disease. We believe that our broad and exclusive commercial rights to patented and patent-pending 3D bioprinting technology, combined with strengths in engineering and biology, put us in an ideal position to provide a wide array of products for use in research, drug discovery and regenerative medicine therapies.

Our foundational proprietary technology derives from research led by Dr. Gabor Forgacs, a Professor of Biophysics at the University of Missouri. We have a broad portfolio of intellectual property rights covering principles, enabling instrumentation applications and methods of cell based printing, including exclusive licenses to certain patented and patent pending technologies from the University of Missouri-Columbia and Clemson University, and outright ownership of six pending patent applications (the patents and patent rights described in this paragraph are sometimes collectively referred to as the “Intellectual Property Rights”). See “— Intellectual Property”.

We believe that our portfolio of Intellectual Property Rights provides a strong and defensible market position for the commercialization of 3D bioprinting technology.

We believe we have the potential to build and maintain a sustainable business by leveraging our core technology platform across a variety of applications. As part of our business strategy we intend to pursue collaboration agreements with drug development companies that will allow us to further develop our 3D bioprinting technology and the potential uses of the cellular structures and tissues that can be produced with our technology. We also plan to develop research products with our 3D bioprinting technology that can be offered to third parties involved in drug discovery. We currently have collaborative research agreements currently in effect with Pfizer, Inc. (“Pfizer”) and United Therapeutic Corporation (“Unither”). We have also secured five federal grants in the aggregate amount of approximately $955,000 including Small Business Research Innovation grants and developed the NovoGen MMX Bioprinter™ (our first-generation 3D bioprinter) — within two and one half years of opening our first facilities. We believe these corporate achievements provide strong validation for the commercial viability of our technology.

As of September 30, 2012, we had devoted substantially all of our efforts to product development, raising capital and building infrastructure. We did not, as of that date, realize significant revenues from our planned principal operations. Accordingly, we are considered to be in the development stage.

The Technology

Our technology is centered around a core 3D bioprinting method, represented by our bioprinting instrument, the NovoGen MMX Bioprinter™. The 3D bioprinting technology enables a wide array of tissue compositions and architectures to be created, using combinations of cellular ‘bio-ink’ (building blocks comprised solely of cells), hydrogel (building blocks comprised of biocompatible gels), or hybrid ‘bio-ink’ (building blocks comprised of a mixture of cells and material such as hydrogel). A key distinguishing feature of our bioprinting platform is the ability to generate three-dimensional constructs that have all or some of their components comprised entirely of cells. The fully-cellular feature of our technology enables architecturally- and compositionally-defined 3D

human tissues to be generated for *in vitro* use in drug discovery and development to potentially replicate the functional biology of a solid, fully cellular tissue. Furthermore, fully cellular constructs may offer specific advantages for regenerative medicine applications where bioactive cells are required and three-dimensional configuration is necessary, such as augmenting or replacing functional mass in tissues and organs that have sustained acute or chronic damage.

We plan to develop research products with our 3D bioprinting technology that can be offered to third parties involved in drug discovery. We intend to deliver the following products to the market:

- Three-dimensional models of human tissue for utilization in traditional absorption, distribution, metabolism, excretion (ADME) / toxicology (TOX) / and drug metabolism and pharmacokinetics (DMPK) testing in drug development.
- Specific models of human biology or pathophysiology, in the form of three-dimensional human tissues, and for use in drug discovery, development, and delivery.
- Three-dimensional human tissues for use as therapeutic regenerative medicine products, such as blood vessels for bypass grafting, nerve grafts for nerve damage repair and cardiac patches for treatment of heart disease.
- 3D bioprinters for use in medical research.
- A portfolio of consumables for use in 3D bioprinting.

As part of our business strategy we intend to pursue collaboration agreements with drug development companies that will allow us to further develop our 3D bioprinting technology and the potential uses of the cellular structures and tissues that can be produced with our technology. We currently have a collaborative research agreement with Pfizer to develop specific three-dimensional tissue models. We are engaged in the development of specific 3D human tissues to aid Pfizer in discovery of successful therapies in two areas of interest. In addition, in October 2011, we entered into a research agreement with Unither to establish and conduct a research program to discover treatments for pulmonary hypertension using our NovoGen MMX Bioprinter™ technology.

Market Opportunity

We believe that our bioprinting technology is uniquely positioned to provide three-dimensional human tissues for use in drug discovery and development as well as a broad array of tissues suitable for therapeutic use in regenerative medicine applications. While there are rapid-prototyping printers currently available that build three-dimensional structures out of polymers (often used for prototyping of plastic parts for tools or devices), these instruments are not specifically designed or intended for use with purely cellular inks in building biologic tissues and we do not believe that the firms working on these instruments have the required biology expertise to create tissues using these instruments at this time. There are multiple markets addressable by our technology platform:

1) Specialized Models for Drug Discovery and Development: The NovoGen MMX Bioprinter™ can produce highly specialized three-dimensional human tissues that can be utilized to model a specific tissue physiology or pathophysiology. Our bioprinting technology has demonstrated the ability to create human blood vessel constructs, and to create fully human tissue containing capillary structures. These capabilities are anticipated to broaden the scope and scale of 3D tissues that can be generated, and to facilitate the development of disease models in such areas as cardiovascular disease, oncology, and fibrosis.

2) Biological Research Tools: Absorption, distribution, metabolism, excretion (ADME) testing is used to determine which factors enhance or inhibit how a potential drug compound reaches the blood stream. Distribution of a compound can be affected by binding to plasma proteins; age, genetics, and other factors can influence metabolism of a compound; and the presence of certain disease states can have effects on excretion of a compound. Many companies perform ADME studies utilizing various cell-based assays or automated bioanalytical techniques. Drug metabolism and pharmacokinetics (DMPK) testing is a subset of

ADME. Determining the DMPK properties of a drug helps the drug developer to understand its safety and efficacy. Toxicology (TOX) testing is a further requirement to determine the detrimental effects of a particular drug on specific tissues. We believe that the NovoGen MMX Bioprinter™ is positioned to deliver highly differentiated products for use in traditional cell-based ADME / TOX / DMPK studies. Products in this arena may replace or complement traditional cell-based assays that typically employ primary hepatocytes, intestinal cell lines, renal epithelial cells and cell lines grown in a traditional two-dimensional format. Importantly, the combination of tissue-like three-dimensionality and human cellular components is believed to provide an advantage over non-human animal systems toward predicting *in vivo* human outcomes.

3) Regenerative Medicine: The field of regenerative medicine is advancing via multiple strategic approaches in development and practice, including cell therapies and scaffold-based products (+/- cells). The architectural precision and flexibility of our technology may facilitate the optimization, development, and clinical use of three-dimensional tissue constructs. Importantly, our technology offers a next-generation strategy whereby three-dimensional structures can be generated without the use of scaffolding or biomaterial components. The ultimate goal is to enable fully cellular constructs to be generated in a configuration compatible with surgical modes of delivery, thereby enabling restoration of significant functional mass to a damaged tissue or organ.

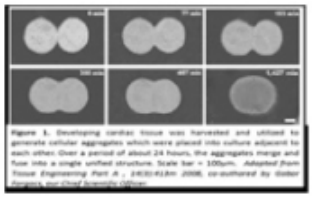
We believe that our technology can capitalize, via strategic partnerships, on additional market opportunities in the provision of enabling tools for drug discovery and development as well as the discovery and development of therapeutic implants that augment or replace damaged tissues and organs. There are multiple short- and long-term revenue opportunities for us in these areas, including direct sales of 3D human tissue constructs for drug screening and development, licensing fees for commercial access to our technology, and royalties from product enablement, particularly in the area of therapeutic products for regenerative medicine.

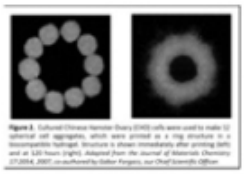
Background on Bioprinting

The formation of ‘bio-ink’ — the cell-based building blocks that can be dispensed by our bioprinter — relies on the demonstrated principle that groups of individual cells will self-assemble to generate aggregates, through the actions of cell surface proteins that bind to each other and form junctions between cells. Furthermore, if two or more compatible self-assembled aggregates are placed in close proximity, under the proper conditions they will fuse to generate larger, more complex structures via physical properties analogous to those that drive fusion of liquid droplets. The concept of tissue liquidity originated in studies of developmental biology, where it was noted that developing tissues have liquid-like properties that enable individual cellular components to pattern each other, migrate, organize, and differentiate. As development progresses, tissues transition from a dynamic viscous liquid state to a more static semi-solid state, largely driven by the compartmentalized organization of cellular components and production within the organized tissue of extracellular matrix proteins that provide the mature tissue with the biomechanical properties required for tissue-specific function.

Figure 1 demonstrates self-assembly and tissue liquidity using cellular aggregates generated from developing chicken heart tissue, showing that two adjacent aggregates will fuse over time and generate a larger cellular structure. This basic behavior can be leveraged to form more complex structures whereby aggregates are arranged in a specific geometry that can recapitulate shapes and architectures commonly found in tissues and organs, including tubes and multi-layered structures.

Figure 2 shows that the phenomenon of aggregate fusion in embryonic tissue can be extended to adult-derived cultured mammalian cells, as demonstrated by the fusion of adult hamster ovary epithelial cell aggregates to form toroid (ring) structures when placed into that geometry and held for about 120 hours.





The NovoGen MMX Bioprinter™

Our NovoGen MMX Bioprinter™ is an automated device that enables the fabrication of three-dimensional (3D) living tissues comprised of mammalian cells. A custom graphic user interface (GUI) facilitates the 3D design and execution of scripts that direct precision movement of the dispensing heads to deposit cellular building blocks (‘bio-ink’) or supporting hydrogel. The unit fits easily into a standard biosafety cabinet, eliminating the need to purchase ancillary equipment or make facility modifications to maintain sterility of bioprinted tissues during the printing process. The speed and precision of this instrument enables the production of small-scale tissue models for drug discovery as well as various drug absorption and toxicology assays. The NovoGen MMX Bioprinter™ (Figure 3) went from in-licensing and initial design to commercial production in less than two years.

We are currently using a third party manufacturer, Invetech Pty., of Melbourne, Australia, to manufacture our NovoGen MMX Bioprinter. Under our manufacturing and supply agreement with Invetech, Invetech has agreed to manufacture our bioprinters for a certain budgeted cost, which cost decreases as we increase the number of bioprinters manufactured. Either party can terminate the manufacturing and supply agreement at any time. Although Invetech is currently a sole source manufacturer for our bioprinters, we believe we can locate a number of other third party manufacturers with the requisite expertise to manufacturer our bioprinters without significant delays or costs should Invetech elect to terminate their agreement with us.

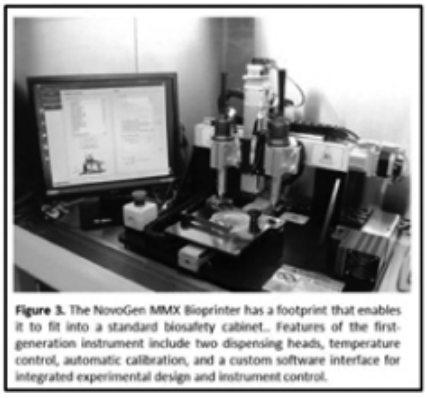


Figure 3. The NovoGen MMX Bioprinter has a footprint that enables it to fit into a standard biosafety cabinet.. Features of the first-generation instrument include two dispensing heads, temperature control, automatic calibration, and a custom software interface for integrated experimental design and instrument control.

The first step in bioprinting is preparation of the bio-ink aggregates, which are typically generated in spherical or cylindrical format. Bio-ink can be generated from a wide variety of cell types, including cell lines, primary cells, stromal cells, epithelial cells, endothelial cells, and progenitor cells. Bio-ink production begins with the creation of a thick ‘cell paste’ comprised of a slurry of cells and containing any other components required to be part of the final tissue composition. The cell paste is into spherical aggregates, cylindrical bio ink, or another building block form. After a maturation period the bio-ink is loaded into the bioprinter, which then dispenses the building blocks in the geometry specified by the user, with a bio-inert hydrogel serving as a physical support for the bioprinted tissue as well as occupying any negative space included in the design.

The NovoGen MMX Bioprinter™ has proved to be a powerful enabling tool for the design, optimization, and fabrication of viable 3D human tissues, based on our internal product discovery and development efforts as well as the experience of our corporate partners and customers. Continuing use of the NovoGen MMX Bioprinter™ in the pursuit of multiple drug discovery and therapeutic applications has provided key insights that will be utilized in the evolution of the bioprinter platform. We believe that purpose-driven improvements and added product features, combined with new capabilities enabled by additional in-licensed intellectual property, will enhance our ability to deliver commercially viable outputs for corporate partners in drug development and implantable therapeutics.

The NovoGen MMX Bioprinter has won the following awards and accolades:

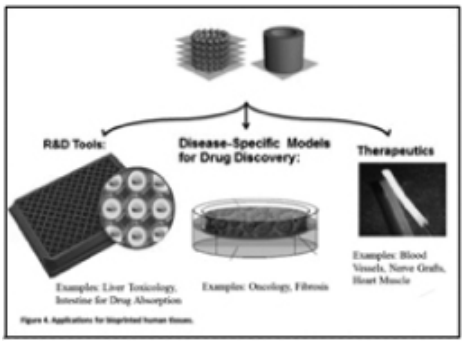
- 2010 International Society for Biofabrication Meeting - Special Award
- 2010 TIME Magazine “50 Best Inventions of 2010”
- 2011 Australian Engineering Innovation Award, sponsored by the Australian government

Organovo was also celebrated as “Dealmaker of the Year 2011—Firm” by the Fermanian Business and Economic Institute and included in MIT Technology Review’s 2012 TR50 List of the World’s Most Innovative Companies.

In 2011 and early 2012 we provided, or will provide, NovoGen MMX Bioprinters™ for use by the following institutions, among others, for research purposes: Harvard Medical School, Wake Forest University, and the Sanford Consortium for Regenerative Medicine (“SCRM”). The SCRM is a new institution which opened in November, 2011, comprised of faculty from the Salk Institute, The Scripps Research Institute, the University of California, San Diego, Sanford-Burnham Medical Research Institute, and La Jolla Allergy and Immunology Institute. We believe that the use of our bioprinting platform by major research institutions will increase the value of the platform and create future opportunities for intellectual property licensing.

Specific Applications for 3D Human Tissues

Our bioprinting technology and surrounding intellectual property and commercial rights serve as a platform for product generation across multiple markets that employ cell- and tissue-based products and services. The core capability of our technology is the production of human tissues with the potential to recapitulate human biology. Once generated, these *in vivo*- like human tissues may be suitable for a variety of applications such as research tools, specialized models of tissue pathobiology, and implantable therapeutics for tissue engineering and regenerative medicine (Figure 4). Importantly, the basic fabrication and maturation protocols that generate functional micro-scale tissues for *in vitro* use will serve as a foundation for the design and manufacture of larger-scale tissues intended for therapeutic use to augment or replace damaged or degenerating organs.



Collaborative Agreements

As part of our business strategy, we intend to pursue collaboration agreements with drug development companies that will allow us to further develop our bioprinter technology and the potential uses of the cellular structures and tissues that can be produced with our bioprinter technology. Under these collaboration agreements, we and the

drug development company will conduct research to pursue drug discovery utilizing the three dimensional cellular structures developed with our bioprinter technology. Currently, drug therapy research and testing generally involves testing drug candidates and therapies on monolayer two dimensional cell cultures that attempt to mimic damaged or degenerating tissues. We believe the use of our technology, which creates three dimensional cellular structures, will enhance and facilitate drug discovery.

Our collaboration agreements typically provide for the parties to mutually develop a research plan and timeline. Each collaboration partner is required to provide the other party reports describing the applicable party's progress under such research plan. Our collaborative agreements generally have a term of the later of one to three years, or the completion by us of the applicable research plan. The agreements provide for certain upfront payments and milestone payments throughout the term related to our research and development obligations under the agreement. In addition, the collaboration agreements provide for a future licensing arrangement between the parties, with royalties payable to us, if the drug development company is successful in identifying a drug candidate or therapy utilizing our bioprinter technology. These agreements also provide customary mutual indemnities and contain standard representations and warranties.

Our first two collaboration agreements are with Pfizer, Inc. ("Pfizer") and United Therapeutics Corporation ("Unither"). In December 2010, we entered into a collaborative research agreement with Pfizer to develop tissue based drug discovery assays in two therapeutic areas utilizing our NovoGen MMX Bioprinter ™ technology. To date, Pfizer has paid us all amounts due under the agreement and we anticipate completing the research plan by July 2012. We anticipate that the agreement will be extended past July 2012; although we can give no assurance that it will in fact be so extended. In October 2011, we entered into a research agreement with Unither to establish and conduct a research program to discover treatments for pulmonary hypertension using our NovoGen MMX Bioprinter ™ technology, which remains in effect until the later of 30 months from its commencement or our completion of the contracted research. Additionally, under the research agreement with Unither, we granted Unither an option to acquire from us a worldwide, royalty-bearing license in certain intellectual property created under the research agreement solely for use in the treatment or prevention of pulmonary hypertension and all other lung diseases. The license would provide for certain milestone payments and minimum annual royalties and sales-based royalties.

Federal Grants

We have received five federally funded grants to date. In August, 2009 and August, 2010 we received grants from National Heart, Lung, and Blood Institute, a division of the Department of Health and Human Services, to fund our research in connection with building and testing multi-layered fully biological blood vessel substitutes and bioprinting with specialized adult stem cells derived from adipose (fat) tissue. The total amount of these grants was $267,625. In October, 2010 we received two grants from the federal government relating to our projects titled "Biological 3D Bioprinted Blood Vessel" and "NovoGen 3D Bioprinter Development." The total amount of these grants was $397,287. In March 2012, we received a $290,053 grant from the National Institutes of Health to support the development of functional human liver tissue utilizing our bioprinting technology.

Competition

We are subject to significant competition from pharmaceutical, biotechnology, and diagnostic companies; academic and research institutions; and government or other publicly-funded agencies that are pursuing the development of research tools and therapeutic products that otherwise address the needs of our potential customers.

We believe our future success will depend, in large part, on our ability to maintain a competitive position in our field. Biopharmaceutical technologies have undergone and are expected to continue to undergo rapid and significant change. We or our competitors may make rapid technological developments which may cause our research tools or therapeutic products to become obsolete before we recover the expenses incurred. The

introduction of less expensive or more effective therapeutic discovery and development technologies, including technologies that may be unrelated to our field, may also make our technology less valuable or obsolete. We may not be able to make the necessary enhancements to our technologies or research tools to compete successfully with newly emerging technologies. The failure to maintain a competitive position in the biopharmaceutical field may result in decreased revenues.

We are a platform technology company dedicated to the development and production of 3D human tissues that service both the drug development and regenerative medicine industries. To our knowledge, there are no other companies with a similar platform technology or marketed products.

Set forth below is a discussion of competitive factors for each of the broad markets in which we intend to utilize our technology:

Highly Specialized Models for Drug Discovery: This aspect of our business is driven by leveraging our technology as a high-end partnered service that enables a customer to discover or optimally formulate a pharmacologic product that delivers a specific therapeutic effect, or avoids a particular side effect. In addition to revenue generated from the tissue production work, additional revenues are possible in the form of up-front license fees, milestone payments, know-how payments, and royalties. We can provide the customer access to tissues as a service or can produce and supply the tissues to customers; both options are designed to generate continuing revenue. Competition in this area arises mainly from two sources, traditional cell-based *in vitro* culture approaches and traditional *in vivo* animal models and testing.

We believe that an important factor distinguishing our approach from that of our competitors is our ability to build models that are composed of human cells and have a 3D tissue-like configuration (i.e., able to generate results that are not subject to inherent limitations of 2D monolayer culture). We acknowledge, however, that there are some areas of research for which the existing methods (2D cell culture and/or animal studies) are adequate and 3D *in vitro* human tissues are not sufficiently advantageous.

Tools for Research and Drug Development: We intend to employ our technology to provide an array of broadly-applicable enabling tools and assays to the drug research markets. Examples of products in this segment of the business include future pipeline efforts in the development of 3D human tissue models that service the ADME/TOX/DMPK markets as alternatives or supplements to traditional cell-based assays and animal studies, and the NovoGen MMX Bioprinter™ instrument.

Competition in the bioprinter arena has been limited to date. We believe that we have a first mover advantage in being the first and only company to offer a purely cellular bioprinting system commercially, which does not rely on the presence of foreign, non-native polymer in the final tissue construct. Some academic groups have internally created inkjet bioprinting systems, but these systems have not been developed commercially to date and are unlikely to adapt as well to a commercial model.

Regenerative Medicine: This aspect of our business involves application of our 3D bioprinting technology to generate 3D human tissues suitable for implantation *in vivo* to augment or replace damaged or degenerating tissues. The majority of these efforts will be undertaken as partnered projects with leading therapeutic companies seeking to develop a tissue engineering / regenerative medicine product for a specific application. Near-term revenues would come from the funding of development work and, in some cases, licensing fees for access to our platform technologies. We expect longer-term revenues may arise from shared profits and royalties or other forms of income from successful clinical and commercial development of the tissue products. There are many companies pursuing the discovery, development, and commercialization of tissue-engineered products for a variety of applications, including but not limited to Organogenesis, Advanced BioHealing (recently acquired by Shire), Tengion, Genzyme (a subsidiary of Sanofi), HumaCyte and Cytograft Tissue Engineering. These companies represent potential competition for us but can also be potential partners. For any tissue-engineered / regenerative medicine product where three-dimensionality is desired, our platform has a unique ability to enable generation of prototypes, optimization of prototypes and protocols, and production of the tissue.

Intellectual Property

Our success depends in large part on our ability to obtain and enforce patents, maintain protection of trade secrets and operate without infringing the proprietary rights of third parties. We hold exclusive licenses to one U.S. patent, three U.S. patent applications and multiple corresponding international patent applications. We have filed six U.S. patent applications and corresponding international patent applications regarding our technology and its various uses in areas of tissue creation and utilization in drug discovery, including filings for specific tissue types.

In March, 2009, we obtained a world-wide exclusive license to a suite of intellectual property owned or licensed by the University of Missouri-Columbia ("MU") covering the following two patent applications:

- "Self-Assembling Cell Aggregates and Methods of Making Engineered Tissue Using the Same" (US 10/590,446); and
- "Self-Assembling Multicellular Bodies and Methods of Producing a Three-Dimensional Biological Structure Using the Same" (PCT/US2009/48530) (the "MU 2009 License Agreement").

The Company received official notification that the U.S. Patent and Trademark Office (the "USPTO") issued a patent (No. 8,143,055) for the above mentioned patent application. The patent provides the Company with intellectual property rights to create cellular aggregates, to use cellular aggregates to create engineered tissue, and to employ cellular aggregates to create engineered tissue with no scaffold present.

In addition, in March, 2010, we obtained a world-wide exclusive license to additional intellectual property from MU, including a patent application covering the composition and method of manufacture of a nerve conduit (the "MU 2010 License Agreement", and together with the MU 2009 License Agreement, the "MU License Agreements"). The patent application licensed to us under the MU 2009 License Agreement, entitled "Self-Assembling Multicellular Bodies and Methods of Producing a Three-Dimensional Biological Structure Using the Same" (Serial No. 12/491,228), of which an issue notification has been mailed by the U.S. Patent and Trademark Office assigning a projected U.S. Patent No. of 8,143,055, is expected to expire in June 2029. The remaining two patent applications licensed under the MU License Agreements are still under review at the U.S. Patent and Trademark Office.

Each of the MU License Agreements required us to make an upfront payment ranging from $5,000 to $25,000. They also require us to pay royalties ranging from 1% to 3% of net sales depending on the level of net sales reached and certain minimum annual royalties ranging from $5,000 to $25,000. Additionally, the MU 2010 License Agreement requires us to pay a minimum royalty of $12,500 if no net sales are achieved after five years from the effective date. Additionally, we are required to pay 20% of all revenue derived from any sublicense we grant under any of the MU License Agreements. The MU License Agreements terminate upon the last to expire licensed patents and may be terminated upon breach of either party, subject to standard cure provisions.

Dr. Gabor Forgacs, one of our Founders and Scientific Advisors, is the common inventor of all of these works (the "Forgacs Intellectual Property "). The Forgacs Intellectual Property is the result of years of research by Dr. Gabor Forgacs, the George H. Vineyard Professor of Biophysics at the University of Missouri-Columbia and his collaborators and research teams. Dr. Forgacs is a sought after expert in biofabrication with a long record of peer-reviewed publications. The Forgacs Intellectual Property derives from work done in the labs of Dr. Forgacs and his collaborators, including the work done under a $5,000,000 Frontiers In Biological Research grant that Dr. Forgacs and his collaborators received from the National Science Foundation.

The Forgacs Intellectual Property provides us with intellectual property rights to create cellular aggregates, to use cellular aggregates to create engineered tissue, and to employ cellular aggregates to create engineered tissue with no scaffold present. The intellectual property rights derived from the Forgacs Intellectual Property also enables us to utilize our NovoGen MMX Bioprinter ™ to create engineered tissues, and provides us with rights to specific compositions with utility in the creation of nerve conduit.

In May, 2011, we obtained an exclusive license (the "CURF License Agreement") to a patent entitled "Ink Jet Printing of Viable Cells" (US 7,051,654) from the Clemson University Research Foundation ("CURF Patent"). The Clemson University Research Foundation had been granted certains rights allowing it to offer exclusive rights to the CURF Patent. The CURF Patent provides us with the intellectual property rights to methods of using ink-jet printer technology to dispense cells, and to create matrices of bioprinted cells on gel materials. This patent is expected to expire in May 2024.

The CURF License Agreement requires us to make an upfront payment of $32,500, payable in four quarterly payments with the last payment due in April 2012. Additionally, the CURF License Agreement requires us to pay royalties ranging from 1.5% to 3% of net sales depending on the level of net sales reached and minimum annual royalties ranging from $20,000 to $40,000. Additionally, we are required to pay 40% of all revenue derived from any sublicense we grant under the CURF License Agreement. The CURF License Agreement terminates upon the last to expire licensed patents and may be terminated upon breach of either party, subject to standard cure provisions.

Under our license arrangements, we have full control and authority over the development and commercialization of any licensed products, including clinical trials, manufacturing, marketing, and regulatory filings. We were required to submit and have submitted plans for commercialization of all technologies and are required to make efforts to pursue commercial development of the technology. We are required to make payments on an annual basis after commercialization to maintain the license rights.

We currently have U.S. patent applications pending to protect our proprietary methods and processes and have also filed, and intend to file, corresponding foreign patent applications. We believe that protection of the proprietary nature of our products and technologies is essential to our business. Accordingly, we have adopted and will continue a vigorous program to secure and maintain protection of our proprietary methods and processes. We file patent applications with respect to novel technology, and improvements thereof that are important to our business. We also rely upon trade secrets, unpatented know-how, continuing technological innovation and the pursuit of licensing opportunities to develop and maintain our competitive position. There can be no assurance that others will not independently develop substantially equivalent proprietary technology or that we can meaningfully protect our proprietary position.

Regulatory Considerations

We are not aware of any current FDA regulatory requirements for sales of research tools, such as bioprinters and bioprinted tissues, into a research setting. However, pharmaceutical industry corporate customers with whom we will enter into partnerships will face regulatory review of the research data they generate using our platform and research tools. Good Laboratory Practice (GLP) data is required in the development of any human therapeutic, and our platform has been designed to support compliance with GLP, although no independent testing has been performed to date to confirm this compliance. All product contact surfaces are sterilizable or disposable. GLP considerations around areas such as data integrity are the sole responsibility of the customer without regard to specifics of the research tool used.

Therapeutic tissues and other regenerative medicine products are subject to an extensive and uncertain regulatory approval process by the Food and Drug Administration (FDA) and comparable agencies in other countries. The regulation of new products is extensive, and the required process of laboratory testing and human studies is lengthy and expensive. The burden of these regulations will fall on our collaborating partners, or may be shared with us, to the extent that we are developing proprietary products that are the result of a collaboration effort. The burden of these regulations will fall on us to the extent we are developing proprietary products on our own. We may not be able to obtain FDA approvals for those products in a timely manner, or at all. We may encounter significant delays or excessive costs in our efforts to secure necessary approvals or licenses. Even if we obtain FDA regulatory approvals, the FDA extensively regulates manufacturing, labeling, distributing, marketing, promotion and advertising after product approval. Moreover, several of our product development areas may

involve relatively new technology and have not been the subject of extensive product testing in humans. The regulatory requirements governing these products and related clinical procedures remain uncertain and the products themselves may be subject to substantial review by foreign governmental regulatory authorities that could prevent or delay approval in those countries. Regulatory requirements ultimately imposed on our products could limit our ability to test, manufacture and, ultimately, commercialize our products and thereby could adversely affect our financial condition and results of operations.

As constructs move into clinical and commercial settings, use of a validated and Good Tissue Practices (*GTP*) Quality system will be required. Suitable design and documentation for clinical use of the bioprinter will be a part of future phases of printer design programs.

Employees

As of September 30, 2012, we have thirty-three employees, of whom 28 are employed full time. We also engage consultants and temporary employees from time to time to provide services that relate to our bioprinting business and technology as well as for general administrative and accounting services.

Available Information

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Reports filed with the SEC pursuant to the Exchange Act, including annual and quarterly reports, and other reports we file, can be inspected and copied at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. Investors may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. Investors can request copies of these documents upon payment of a duplicating fee by writing to the SEC. The reports we file with the SEC are also available on the SEC’s website (http://www.sec.gov).

DESCRIPTION OF PROPERTY

We lease office and laboratory space in San Diego. Our primary office, including administrative and laboratory space, is located at 6275 Nancy Ridge Dr., San Diego, CA 92121. Our current monthly base rent for our primary facility is $38,848.

DIVIDEND POLICY

We have paid no dividends on our common stock to date and it is not anticipated that any dividends will be paid to holders of our common stock in the foreseeable future. While our future dividend policy will be based on the operating results and capital needs of our business, it is currently anticipated that any earnings will be retained to finance our future expansion and for the implementation of our business plan. As an investor, you should take note of the fact that a lack of a dividend can further affect the market value of our stock, and could significantly affect the value of any investment.

EQUITY COMPENSATION PLAN INFORMATION

	Number of Shares to be Issued Upon Exercise of Outstanding Stock Options and Restricted Stock Units	Weighted-Average Exercise Price of Outstanding Stock Options	Number of Shares Remaining Available for Future Issuance Under Equity Compensation Plans
Equity compensation plans approved by security holders:			
2008 Equity Incentive Plan	896,256	$ 0.08	—
2012 Equity Incentive Plan	—	—	6,553,986
Equity compensation plans not approved by security holders	—	—	—
Total	896,256	$ 0.08	6,553,986

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following management's discussion and analysis should be read in conjunction with the Company's historical condensed consolidated financial statements and the related notes thereto included in our Current Report on Form 8-K/A for the year ended December 31, 2011, as filed with the SEC on May 11, 2012 (the "Current Report") and our Form 10-Q for the quarterly period ended September 30, 2012, as filed with the SEC on November 14, 2012. The management's discussion and analysis contains forward-looking statements, such as statements of our plans, objectives, expectations and intentions. Any statements that are not statements of historical fact are forward-looking statements. When used, the words "believe," "plan," "intend," "anticipate," "target," "estimate," "expect" and the like, and/or future tense or conditional constructions ("will," "may," "could," "should," etc.), or similar expressions, identify certain of these forward-looking statements. These forward-looking statements are subject to risks and uncertainties including those under "Risk Factors" in Item 2.01 of our Current Report, that could cause actual results or events to differ materially from those expressed or implied by the forward-looking statements in this quarterly report. The Company's actual results and the timing of events could differ materially from those anticipated in these forward-looking statements as a result of several factors.

Basis of Presentation

References in this section to "Organovo Holdings, Inc.," "Organovo Holdings," "we," "us," "our," "the Company" and "our Company" refer to Organovo Holdings, Inc. and its consolidated subsidiary Organovo, Inc.

On February 8, 2012, Organovo Holdings, Inc., a privately held Delaware corporation, merged with and into Organovo Acquisition Corp., a wholly-owned subsidiary of Organovo Holdings, Inc., with Organovo, Inc. surviving the merger as a wholly-owned subsidiary of the Company (the "Merger"). As a result of the Merger, the Company acquired the business of Organovo, Inc., and will continue the existing business operations of Organovo, Inc.

The condensed consolidated financial statements included in this Form 10-Q have been prepared in accordance with the SEC instructions to Quarterly Reports on Form 10-Q. Accordingly, the condensed consolidated financial statements presented elsewhere in this Form 10-Q and discussed below are unaudited and do not contain all the information required by U.S. generally accepted accounting principles ("GAAP") to be included in a full set of financial statements. The audited financial statements for our fiscal year ended December 31, 2011, filed with the SEC on Form 8-K/A on May 11, 2012 include a summary of our significant accounting policies and should be read in conjunction with this Form 10-Q. In the opinion of management, all material adjustments necessary to present fairly the results of operations for such periods have been included in this Form 10-Q. All such adjustments are of a normal recurring nature. The results of operations for interim periods are not necessarily indicative of the results of operations for the entire year.

Overview

Organovo, Inc. was founded in Delaware in April 2007. Activities since Organovo, Inc.'s inception through September 30, 2012, were devoted primarily to developing a platform technology for the generation of three-dimensional (3D) human tissues that can be employed in drug discovery and development, biological research, and as therapeutic implants for the treatment of damaged or degenerating tissues and organs.

As of September 30, 2012, Organovo, Inc. had devoted substantially all of its efforts to product development, raising capital and building infrastructure. Organovo, Inc. did not, as of that date, realize significant revenues from its planned principal operations. Accordingly, the Company is considered to be in the development stage.

Critical Accounting Policies, Estimates, and Judgments

Our financial statements are prepared in accordance with accounting principles that are generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. We continually evaluate our estimates and judgments, the most critical of which are those related to revenue recognition, valuation of long-lived assets and warrant liability, share-based compensation and the timing of the achievement of collaboration milestones. We base our estimates and judgments on historical experience and other factors that we believe to be reasonable under the circumstances. Materially different results can occur as circumstances change and additional information becomes known. Besides the estimates identified above that are considered critical, we make many other accounting estimates in preparing our financial statements and related disclosures. All estimates, whether or not deemed critical, affect reported amounts of assets, liabilities, revenues and expenses, as well as disclosures of contingent assets and liabilities. These estimates and judgments are also based on historical experience and other factors that are believed to be reasonable under the circumstances. Materially different results can occur as circumstances change and additional information becomes known, even for estimates and judgments that are not deemed critical.

For further information, refer to the Company's audited financial statements and notes thereto included in the Current Report on Form 8-K/A for the fiscal year ended December 31, 2011, filed with the Securities and Exchange Commission (the "SEC") on May 11, 2012 (the "Current Report") .

Results of Operations

Comparison of the three months ended September 30, 2012 and 2011

Revenues

For the three months ended September 30, 2012, total revenues of approximately $469,200 were $237,200 or 102% above the approximately $232,000 in revenues for the same period in 2011. Collaborative research revenues for the three months ended September 30, 2012 of approximately $373,800 increased approximately $141,800 or 61% over the same period of prior year of approximately $232,000 in revenues. Grant revenue for the three months ended September 30, 2012 of approximately $95,500 increased approximately $95,500 or 100% over the same period of prior year of $0 in grant revenue.

Operating Expenses

Overview

Operating expenses increased approximately $3,232,500 or 378% in the three months ended September 30, 2012 over the same period in 2011, from approximately $854,400 in 2011 to $4,086,900 in 2012. Most significantly, relative to the same period in the prior year, the Company invested in infrastructure and outside services to support its transition from private ownership to a publicly owned and traded corporation. As expected in such transition, incremental initiatives were established in investor outreach, corporate governance, and SEC financial reporting. Non-payroll, related incremental public company expenses incurred in the three month periods ended September 30, 2012 was approximately $308,200 or 100% increase from $0 for the same period in 2011. Moreover, the Company invested in building its executive, research, and development staff, increasing the three months ended September 30, 2012 payroll related expenses by approximately $676,800 or 236% over the same periods in 2011. Stock-based compensation expense increased approximately $1,277,200, newly established fees to our non-employee board members were approximately $32,900 and additional space was rented to accommodate our growing administrative and research staff at an approximate incremental cost of $97,500 over the same period in 2011.

Research and Development Expenses

For the three months ended September 30, 2012, research and development expenses increased by approximately $801,200 or 263% over the same periods in 2011, with expenses in the three months ended September 30, 2012 and 2011 of approximately $1,105,500 and $304,300, respectively. The Company increased its research staff to accommodate obligations under certain collaborative research agreements and to expand product development efforts in preparation for research-derived revenues. Full-time research and development staffing increased from twelve scientists, engineers and research associates at September 30, 2011 to twenty-two at September 30, 2012. Laboratory supplies expenses increased from approximately $12,100 in the three months ended September 30, 2011 to approximately $230,000 in the same period in 2012, an increase of approximately $217,900. This increase was related to purchases in support of our collaborative research conducted under our agreements and our NIH grant.

General and Administrative Expenses

For the three months ended September 30, 2012, general and administrative expenses of approximately $2,981,500 increased approximately $2,431,300, or 442%, over expenses in the same period of 2011 of approximately $550,200. Expense increases were primarily driven by the Company's transition from operating in a private environment to operating in a publicly traded environment. Expanded staff increased payroll and facilities expenses in 2012 over 2011 levels. General and administrative staffing increased from four full-time employees at September 30, 2011 to nine at September 30, 2012. The increase was primarily due to the addition of two executive positions and more accounting and administrative staff. There was also salary increases for existing executive officers as approved by the Board of Directors, reflecting the increased responsibilities assumed as a result of being a publicly traded Company. Approximately $308,200 in other public company expenses were incurred in the three months ended September 30, 2012 due to several factors including increases to investor relations spending, financial printing, fees for non-employee Board members, legal expenses, information technology investments in hardware, software and consulting services, and travel.

Other Income (Expense)

The approximate $42,278,500 increase in other income (expense) for the three month period ending September 30, 2012 over the same period of the prior year, was primarily related to the change in fair value of warrant liabilities for the three months ended September 30, 2012 of approximately $42,252,400. During the Private Placement in the first quarter of 2012 we issued warrants to purchase 6,099,195 shares of our common stock to the placement agent and warrants to purchase 15,247,987 of our common stock to investors in the Private Placement. The warrants issued to the placement agent and Private Placement investors were determined to be derivative liabilities as a result of the anti-dilution provisions in the warrant agreements that may result in an adjustment to the warrant exercise price. We will revalue the derivative liability on each balance sheet date and will do so until the securities to which the derivatives liabilities relate are exercised or expire. The third quarter of 2012 also included a loss on disposal of fixed assets of approximately $158,400 which occurred in relation to moving to our new facility. Other expenses for the three months ended September 30, 2011 of approximately $182,800 related primarily to interest recorded on convertible notes payable.

Comparison of the nine months ended September 30, 2012 and 2011

Revenues

For the nine months ended September 30, 2012, total revenues of approximately $848,200 were approximately $242,100 or 40% above the approximately $606,100 revenues for same periods in 2011. Collaborative research revenues for the nine months ended September 30, 2012 of approximately $752,700 increased approximately $303,500 or 68% over the same period of the prior years of approximately $449,200. In addition, grant revenue of approximately $95,500 increased $38,600 or 68% compared to the nine months ended September 30, 2011. That growth was offset by no product revenues in the nine months ended September 30, 2012, compared to approximately $100,000 of product revenues in the same period of the prior year.

Operating Expenses

Overview

Operating expenses increased approximately $5,110,100, or 238% in the nine months ended September 30, 2012 over the same period in 2011, from approximately $2,143,600 in 2011 to approximately $7,244,700 in 2012. Most significantly, relative to the same period in the prior year, the Company invested in infrastructure and outside services to support its transition from private ownership to a publicly owned and traded corporation. As expected in such transition, incremental initiatives were established in investor outreach, corporate governance, and SEC financial reporting including the need for audited financial statements. Non-payroll, non-audit related incremental public company expenses incurred in the nine month periods ended September 30, 2012, was approximately $2,774,200 or 100% increase from $0 for the same period in 2011. A portion of our public company-related expenses are included in other income and expense. Fees paid to our independent accounting firm to audit our financial statements were approximately $177,800 for the nine months ended September 30, 2012, representing approximately 132% increase from the same period in 2011. Moreover, the Company invested in building its executive, research, and development staff, increasing the nine months ended September 30, 2012 payroll expenses by approximately $1,231,822 or 164% over the same periods in 2011. Stock-based compensation expense increased approximately $1,280,900 for the nine months ended September 30, 2012. Executive search fees totaled approximately $36,000, newly established fees to our non-employee board members were approximately $109,000 and additional space was rented to accommodate our growing administrative and research staff at an approximate incremental cost of $155,900 over the same period in 2011.

Research and Development Expenses

For the nine months ended September 30, 2012, research and development expenses increased by approximately $1,291,300, or 127% over the same period in 2011, with expenses in the nine months ended September 30, 2012 and 2011 of approximately $2,305,300 and $1,014,000, respectively. The Company increased its research staff to accommodate obligations under certain collaborative research agreements and to expand product development efforts in preparation for research-derived revenues. Full-time research and development staffing increased from twelve scientists, engineers and research associates at September 30, 2011 to twenty-two at the same period in 2012. Laboratory supplies expenses increased from approximately $84,100 in the nine months ended September 30, 2011 to approximately $463,900 in the same period in 2012, an increase of approximately $379,800. This increase was related to purchases in support of research conducted under our collaborative agreements and our NIH grant.

General and Administrative Expenses

For the nine months ended September 30, 2012, general and administrative expenses of approximately $4,939,400 increased approximately $3,809,800, or 337%, over expenses in the same period of 2011 of approximately $1,129,600. Expense increases were primarily driven by the Company’s transition from operating in a private environment to operating in a publicly traded environment. Expanded staff increased payroll and facilities expenses in 2012 over 2011 levels. General and administrative staffing increased from four full-time employees at September 30, 2011 to nine at September 30, 2012. The increase was primarily due to the addition of two executive positions and more accounting and administrative staff. There were also salary increases for existing executive officers as approved by the Board of Directors, reflecting the increased responsibilities assumed as a result of being a publicly traded Company. Audit related expenses increased approximately $165,300 from $12,500 for the nine month period ended September 30, 2011 to $177,800 for the same period of 2012. Approximately $2,774,200 in other public company expenses were incurred in the nine months ended September 30, 2012 for multiple reasons including increases to investor relations spending, financial printing, fees for non-employee Board members, rent and utilities, legal expenses, information technology investments in hardware, software and consulting services, and travel. A portion of our public company expenses are included in other income and expenses.

Other Income (Expense)

The approximate $27,294,900 increase in other expenses for the nine month period ending September 30, 2012 over the same period of the prior year, was primarily related to the non-cash transaction costs associated with the warrants issued in our first quarter 2012 Private Placement. During the first quarter of 2012 we incurred costs due to the placement agent for the first quarter Private Placement fees of $1,617,629 and reimbursed expenses and legal fees of $166,310. In addition, we issued warrants to purchase 6,099,195 shares of our common stock to the placement agent and warrants to purchase 15,247,987 of our common stock to investors in the Private Placement. The warrants issued to the placement agent and Private Placement investors were determined to be derivative liabilities as a result of the anti-dilution provisions in the warrant agreements that may result in an adjustment to the warrant exercise price. The fair value of warrant liabilities in excess of proceeds received on the issuance date was $19,019,422. We revalue the derivative liability on each balance sheet date and will do so until the securities to which the derivatives liabilities relate are exercised or expire. The change in fair value of the warrant liabilities for the nine months ended September 30, 2012, was an increase of approximately $5,190,600. Financing transaction costs in excess of proceeds received was $2,129,500, and our interest expense for the nine months ended September 30, 2012 was approximately $1,087,700. The interest expense was primarily comprised of non-cash components including accretion of debt discounts and amortization of deferred financing costs. Other expenses for the nine months ended September 30, 2011 of approximately $296,300 related primarily to interest recorded on convertible notes payable.

Various factors are considered in the pricing models we use to value the warrants, including the Company's current stock price, the remaining life of the warrants, the volatility of the Company's stock price, and the risk free interest rate. Future changes in these factors will have a significant impact on the computed fair value of the warrant liability. As such, we expect future changes in the fair value of the warrants to continue to vary significantly from quarter to quarter.

Comparison of the twelve months ended December 31, 2011 and 2010

Revenues

2011 total revenues of $968,513 increased $365,101, or 61%, over 2010 revenues of $603,412. That increase was due to a $613,088 increase in collaborative agreement revenues, and a $223,500 increase in product revenues, partially offset by a $471,487 reduction in grant revenues. While grant revenues are expected to continue through 2012 they are expected to represent a declining portion of total revenues as we focus efforts on collaborative agreements and continued development of research tools.

Cost of Goods Sold, Gross Profit and Gross Profit Margin

Cost of goods sold ("COGS") consists of purchased goods, and inventory-related costs. The Company did not have product revenues in 2010 and consequently did not have COGS. 2011 COGS of $133,607 were approximately 60% of product related revenues and 14% of total revenues.

Operating Expenses

Overview

Operating expenses increased approximately $1,343,259, or 75%, in 2011 over 2010, from $1,781,630 in 2010 to $3,124,889 in 2011. Most significantly, the Company invested in building its executive, research, and development staff, increasing payroll related expenses by $736,239 or 102% over 2010, from $720,759 to $1,456,998. Payroll related expenses accounted for approximately 55% of total year-to-year increase in operating expenses. General corporate expenses grew from $131,362 in 2010 to $421,063 in 2011, an increase of $289,700, or 221%, representing 22% of total operating expense growth. 85% of that expense increase was the result of increased legal activity, primarily focused on intellectual property (patent) protection. In addition, the Company

utilized the services of outside consultants and research services to meet short-term spikes in scientific and professional service demands. Outsourcing those services to meet short-term demands increased Company expenses by $261,213, from $540,458 in 2010 to $801,671 in 2011, accounting for 19% of the total operating expense increases. The Company did not engage an independent accounting firm in 2010 but did so in 2011 to audit the 2009 and 2010 financials. As a result overall operating expenses increased by $24,688 in 2011 over the prior year.

Research and Development Expenses

2011 research and development expenses increased by $216,002, or 18%, over 2010 expenses of $1,203,716 as the Company increased its research staff to accommodate its obligations under certain collaborative research agreements and to expand product development efforts in preparation for research-derived revenues. Full-time research and development staffing increased from four scientists and engineers at the 12 months ended December 31, 2010 to seven in in 2011. In addition, the Company outsourced certain research related activities in response to short-term demand spikes that increased expenses nearly $90,000 over prior year.

Selling, General and Administrative Expenses

Selling, general and administrative expenses grew from $577,914 in 2010 to $1,705,171 in 2011, an increase of $1,127,257 or 195%. Most notably the Company invested in its general and administrative staff, building needed infrastructure to meet the needs of operating in a publicly traded environment. Salaries, fringes and payroll related expenses increased by approximately $686,000, or 61% of the total increase. Legal expenses increased $244,861from $114,099 in 2010 to $358,960 in 2011. 78% of the legal expense increases were related to our patent related legal activities as we work diligently to secure additional patent protection in select markets. In 2011 we secured a short-term lease on office space near our main facility to accommodate our staff increases and need for additional meeting space. Rent expense grew from $107,481 in 2010 to $145, 218 for the year ended December 31, 2011, an increase of approximately $38,000. During 2011 we engaged an independent accounting firm to audit our 2009 and 2010 financial statements, adding approximately $25,000 in administrative expense that was not incurred in the prior year.

Interest Expense

Interest expense increased by $1,906,016 from $160,873 in 2010 to $2,066,889 in 2011. The 2011 interest expense was primarily related to non-cash components including:

1) Accretion of debt discounts to interest expense of approximately $1.2 million
2) Amortization of deferred financing costs of approximately $119,500
3) Fair value of warrants issued in connection with the exchange agreement of approximately $527.6K

In the fourth quarter of 2011, the Company exchanged all outstanding convertible promissory notes for common stock equity, except for one $100,000 note, the principal and accrued but unpaid interest thereon to be paid at the close of a qualified equity financing. Following the exchange of earlier notes for equity, the Company completed a Bridge Financing, in which it sold $1,500,000 in principal amount of 6% promissory notes due March 31, 2012. Those notes will automatically convert to equity, including accrued but unpaid interest, upon the first close of a qualified equity financing.

Financial Condition, Liquidity and Capital Resources

Since its inception, the Company has primarily devoted its efforts to research and development, business planning, raising capital, recruiting management and technical staff, and acquiring operating assets. Accordingly, the Company is considered to be in the development stage.

Since inception, the Company incurred negative cash flows from operations. As of September 30, 2012, the Company had cash and cash equivalents of $7,675,918 and an accumulated deficit of $40,679,249. The Company also had negative cash flow from operations of $7,713,708 during the nine months ended September 30, 2012. At September 30, 2011, the Company had cash of $56,469 and an accumulated deficit of $4,192,601.

At September 30, 2012, the Company had total current assets of $8,228,092 and current liabilities of $976,225, resulting in working capital of $7,251,867. At September 30, 2011, we had total current assets of $553,003 and current liabilities of $3,223,845, resulting in a working capital deficit of $2,670,842.

Net cash used by operating activities for the nine months ended September 30, 2012 was $7,713,708. The Company raised approximately $13.8 million in gross proceeds from the sale of common stock, and $848,213 in revenue during the first nine months of 2012.

Net cash used by operating activities for the nine months ended September 30, 2011 was $959,065.

We believe our cash and cash equivalents on hand as of September 30, 2012, together with funds from equity or debt financing, and amounts to be received from grants and our collaborate research agreements, should be sufficient to fund our ongoing operations as currently planned for at least the next 12 months. The Company has financed its operations primarily through the sale of common stock and convertible notes, and through revenue derived from grants or collaborative research agreements. The Company expects to cover its anticipated operating expenses through cash on hand, through additional financing from existing and prospective investors, and from revenue derived from collaborative research agreements.

The Company will need additional capital to further fund product development and commercialization of its human tissues that can be employed in drug discovery and development, biological research, and as therapeutic implants for the treatment of damaged or degenerating tissues and organs. We cannot be sure that additional financing will be available when needed or that, if available, financing will be obtained on terms favorable to us or to our stockholders. Having insufficient funds may require us to delay, scale back, or eliminate some or all of our development programs or relinquish some or even all of our licensed intellectual property. Failure to obtain adequate financing could eventually adversely affect our ability to operate as a going concern. If we raise additional funds from the issuance of equity securities, substantial dilution to our existing stockholders may result. If we raise additional funds by incurring debt financing, the terms of the debt may involve significant cash payment obligations as well as covenants and specific financial ratios that may restrict our ability to operate our business.

As of September 30, 2012, the Company had 46,969,141 total issued and outstanding shares of Common Stock, and five year and two year warrants for the opportunity to purchase an additional 22,535,957 shares of Common Stock at $1.00 per share. If all warrants were exercised on a cash basis, the Company would realize an additional $22,535,957 in gross proceeds.

The 2012 Equity Incentive Plan provides for the issuance of up to 6,553,986 shares, or approximately 14.0% of our outstanding Common Stock, to executive officers, directors, advisory board members and employees. In aggregate, issued and outstanding common stock, shares underlying outstanding warrants, and shares reserved for the 2012 incentive plan total 76,059,084 shares of common stock.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements, including unrecorded derivative instruments that have or are reasonably likely to have a current or future material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources. We have certain warrants and options outstanding but we do not expect to receive sufficient proceeds from the exercise of these instruments unless and until the underlying securities are registered, and/or all restrictions on trading, if any, are removed, and in either case the trading price of our Common Stock is significantly greater than the applicable exercise prices of the options and warrants.

Effect of Inflation and Changes in Prices

Management does not believe that inflation and changes in price will have a material effect on the Company's operations.

DIRECTORS AND EXECUTIVE OFFICERS

The following persons are our executive officers, non-executive officers and directors and hold the positions set forth opposite their name as of December 4, 2012:

Name	Age	Position(s)
Keith Murphy	40	Chairman of the Board, Chief Executive Officer, and President
Sharon Collins Presnell, Ph.D.	43	Executive Vice President of Research and Development
Barry D. Michaels	62	Chief Financial Officer
Michael Renard	53	Executive Vice President of Commercial Operations
Eric Michael David, Ph.D.	40	Chief Strategy Officer
Robert Baltera, Jr.	46	Director
Andras Forgacs	35	Director
James Glover	62	Director
Adam K. Stern	48	Director

Keith Murphy, Chairman of the Board, Chief Executive Officer, and President, is one of our founders and joined us in July 2007. Mr. Murphy was formerly an employee of biotechnology company Alkermes, Inc., where he worked from July, 1993 to July, 1997 and played a role on the development team for their first approved product, Nutropin (hGH) Depot. He moved to Amgen, Inc. in August, 1997 and developed several other novel formulation and device products. He has over 18 years of experience in biotechnology, including serving in Product Strategy and Director of Process Development roles at Amgen through July, 2007. He was previously Global Operations Leader for the largest development program in Amgen's history, osteoporosis/bone cancer drug Prolia/Xgeva (denosumab). He holds a BS in Chemical Engineering from MIT, and is an alumnus of the UCLA Anderson School of Management.

Mr. Murphy's previous experience in the biotechnology field and his educational experience qualify him to be a member of our Board of Directors.

Dr. Sharon Collins Presnell , Executive Vice President of Research and Development, joined us in May, 2011. Dr. Presnell has over 15 years of experience in the leadership of product-focused R&D. As an Assistant Professor at the University of North Carolina from 1998 to 2001 Dr. Presnell's research in liver and prostate biology and carcinogenesis produced cell- and tissue-based technologies that were outlicensed for industrial applications. She joined Becton Dickinson & Co. (BD) in July, 2001 and played a key role in the early discovery and development of BD's Discovery Platform and FACS CAP™ tools for the optimization of in vitro culture environments and flow cytometry-based characterization of cells. In her role at BD, she grew and led a large multi-disciplinary team to establish feasibility for the Discovery Platform and FACS CAP in multiple therapeutic areas, including diabetes, and stewarded both technologies through revenue-generating commercial partnerships. Dr. Presnell joined Tengion, Inc. in February, 2007 as the Senior Vice President of Regenerative Medicine Research, a position that she held until joining us in May 2011. At Tengion, Dr. Presnell was directly involved in the discovery and early development of Tengion's Neo-Kidney Augment™ technology. Dr. Presnell holds a Ph.D. in Pathology from the Medical College of Virginia.

Barry D. Michaels, Chief Financial Officer, joined us in August, 2011. Mr. Michaels was the Chief Financial Officer of Cardima, Inc., a publicly-traded medical device company (NASDAQ: CRDM), from July, 2003

through June, 2005, and thereafter a consultant to the company through January, 2008. Mr. Michaels has been an independent consultant to medical device and technology companies since 1997, and has more than 30 years of combined industry experience. Since January, 2008 and prior to joining us, Mr. Michaels's devoted his time to his consulting practice. In addition to his consulting practice, Mr. Michaels served as Chief Financial Officer of Lipid Sciences (NASDAQ: LIPD), a biotechnology company, from May, 2001 through January, 2003. Prior to joining Lipid Sciences, Mr. Michaels served as the Chief Financial Officer of IntraTherapeutics, Inc., an endovascular company, from March, 2000 until its acquisition by Sulzer Medica in May, 2001. Mr. Michaels received an MBA in finance from San Diego State University and is a graduate of the Executive Program at the University of California, Los Angeles.

Michael Renard, Executive Vice President of Commercial Operations, joined us in May, 2012. Mr. Renard has more than 29 years of experience in commercial operation, business development and sales and marketing for the life science industry. Since 1997, he has worked with Beckman Coulter holding various positions in program management, business operations and business development. He most recently was the vice president of marketing for North America commercial operations where he was responsible for achieving $2 billion in revenue across 11 major product lines. Before Beckman Coulter, he was vice president and general manager in a start-up development stage incubator division of Sanofi, Inc. and director of corporate accounts at Kallestad Diagnostics. He has a M.B.A from Rockhurst University and a B.A. in biology and chemistry from St. Olaf College.

Dr. Eric Michael David, Chief Strategy Officer, joined us in May, 2012. Dr. David was most recently associate partner at the consultancy McKinsey & Company, where he served private equity, pharmaceutical, biotech, diagnostic, and medical device clients to support pipeline and R&D strategy, as well as market entry strategy. Dr. David played a critical role in the commercial translation of 3D bioprinting as a founder and early director of Organovo, Inc. Prior to his time at McKinsey, Dr. David served as a freelance consultant to the Department of Health and Human Services in the use of genomic technologies for early detection of pathogens for public health preparedness. He completed his residency in Internal Medicine at New York Presbyterian Hospital, where he served as Assistant Chief Resident and received the Dick Bowman Award for scientific endeavor and dedication to patient care. He was also Assistant Professor at The Rogosin Institute and adjunct faculty at The Rockefeller University. He received his M.D. from Columbia University College of Physicians and Surgeons, his J.D. from Columbia University School of Law, and a B.A.in physics and fine arts from Amherst College. He is board certified in Internal Medicine and admitted to the Bar in New York State.

Robert Baltera, Jr., Director, joined us as a director in October, 2009. Most recently, Mr. Baltera was the Chief Executive Officer of Amira Pharmaceuticals, a position he held from July, 2007 through September, 2011. Amira was sold to Bristol-Myers Squibb in September, 2011 for $325 million in cash upfront, plus additional milestone payments of up to $150 million. Mr. Baltera is a seasoned pharmaceutical industry executive who has acquired a wealth of business and product management experience during his 17 years with biotech pioneer Amgen, beginning November, 1990. In his role leading Amira Pharmaceuticals, he was instrumental in focusing the company's development efforts, strengthening and developing its pipeline and forging key collaborations with partners such as GlaxoSmithKline. Before becoming Amira's CEO, he held a number of senior management positions at Amgen, the last being vice president of corporate and contract manufacturing. He served as Amgen's team leader responsible for the approval of Kineret™ in rheumatoid arthritis. Mr. Baltera has an MBA from the Anderson School at UCLA and earned his bachelor's degree in microbiology and a master's degree in genetics from The Pennsylvania State University.

Mr. Baltera's previous experience in the biotechnology field and his educational experience qualify him to be a member of our Board of Directors.

Andras Forgacs, Director, is one of our founders and joined us as a director in April, 2007. Mr. Forgacs has served as a Managing Director at Richmond Global, an international technology-focused venture fund, since July, 2008. In his role at Richmond, Mr. Forgacs focuses on the day-to-day management of the fund and the

sourcing of new investment opportunities. Prior to joining Richmond, beginning in November, 2005, he was a consultant in the New York office of McKinsey & Company advising global financial institutions, healthcare/pharmaceutical companies and private equity/venture capital firms. Mr. Forgacs began his career with Citigroup as an investment banker in the Financial Strategy Group in July, 1999, and helped found the client-facing E-commerce Group. Mr. Forgacs is a Kauffman Fellow with the Center for Venture Education and a Term Member with the Council on Foreign Relations. He holds an MBA from the Wharton School of Business and a Bachelor of Arts with honors from Harvard University. Mr. Forgacs is the son of Gabor Forgacs,Ph.D.,who developed Organovo's breakthrough organ printing technology while leading a team of top regenerative medicine scientists from multiple universities, with the backing of a $5MM National Science Foundation Grant. Dr. Forgacs was one of the founders of the Company.

Mr. Forgacs' previous experience with "start-up" companies in the equity/venture capital field and his educational experience qualify him to be a member of our Board of Directors.

James Glover, Director, joined us as a director in July 2012. Mr. Glover was the Senior Vice President, Operations and Chief Financial Officer of Anadys Pharmaceuticals, Inc., a publicly-traded biopharmaceutical company acquired by Hoffmann-La Roche Inc., from 2006 to 2009. From 1989 to 2006, he was employed by Beckman Coulter, Inc., a public biomedical testing instruments company, most recently serving as Senior Vice President and Chief Financial Officer. Mr. Glover served as a director of Varian, Inc., a publicly-traded company purchased by Agilent Technologies, and was Varian's audit committee chairman. He currently serves as a director for a non-profit corporation. Mr. Glover received his B.S. in accounting from California State Polytechnic University and his M.B.A. from Pepperdine University. Mr. Glover, age 62, is also a certified public accountant.

Mr. Glover's previous executive officer and Board member experience, including his accounting and financial reporting experience, qualify him to be a member of our Board of Directors.

Adam K. Stern, Director, joined us in February 2012 and is the Head of Private Equity Banking at Aegis Capital. Mr. Stern has over 20 years of venture capital and investment banking experience focusing primarily on the technology and life science sectors of the capital markets. He currently heads private equity financing at Aegis Capital and is the CEO of SternAegis Ventures. Mr. Stern joined Aegis and SternAegis in November, 2012. Previously, Mr. Stern managed the structured finance group of Spencer Trask Ventures, Inc. Mr. Stern served at Spencer Trask Ventures from September 1997 to November 2012. He previously was at Josephthal & Co., members of the New York Stock Exchange, where he served as Senior Vice President and Managing Director of Private Equity Marketing and held increasingly responsible positions from 1989 to 1997. He has been a licensed securities broker since 1987 and a General Securities Principal since 1991. Mr. Stern currently sits on the boards of various private companies and one other public company, InVivo Therapeutics Holdings Corp. (OTCBB:NVIV). Mr. Stern holds a Bachelor of Arts degree with honors from The University of South Florida in Tampa.

Mr. Stern's experience as a board member of privately held and publicly traded companies qualifies him to be a member of our Board of Directors. Additionally, his 20 years of venture capital and investment banking focusing on technology and life science sectors will be an asset to the Board of the Directors if we attempt to raise capital in the future.

Family Relationships

Andras Forgacs is the son of Gabor Forgacs, who developed Organovo's breakthrough organ printing technology while leading a team of top regenerative medicine scientists from multiple universities, with the backing of a $5MM National Science Foundation Grant. Dr. Forgacs was one of the founders of the Company.

Scientific And Business Advisory Boards

Gabor Forgacs, Scientific Founder — PhD — University of Missouri and Clarkson University

Dr, Forgacs, is one of our founders. Dr. Forgacs is the Executive and Scientific Director of the Shipley Center for Innovation at Clarkson University and the George H. Vineyard Professor of Biological Physics at the University of Missouri. Dr. Forgacs has been with the University of Missouri since 1999 and has been with Clarkson University since 2011. He developed Organovo's breakthrough bioprinting technology while leading a team of regenerative medicine scientists from multiple universities, with the backing of a $5 million National Science Foundation Grant. Dr. Forgacs is the author of more than 150 peer reviewed journal articles and the textbook Biological Physics of the Developing Embryo, (with Stuart Newman), published by Cambridge University Press. He holds a Ph.D. in theoretical physics from the Roland Eotvos University, Budapest, Hungary. He moved to the United States in the 1980's from the Institute of Physics of the French Atomic Energy Agency in Saclay to accept a professorship at Clarkson University. Dr. Forgacs is the father of Andras Forgacs.

Gordana Vunjak-Novakovic, PhD — Columbia

Dr. Vunjak-Novakovic is the Mikati Foundation Professor of Biomedical Engineering and Medicine at Columbia University, where she directs the Laboratory for Stem Cells and Tissue Engineering, the Bioreactor Core of the NIH Tissue Engineering Center, the Stem Cell Imaging Core and the Craniofacial Regeneration Center. Prof. Vunjak-Novakovic has authored books as well as numerous book chapters, journal articles and issued, licensed and pending patents in the biomedical field. She is a Fellow of the American Institute for Medical and Biological Engineering.

Glenn Prestwich, PhD — University of Utah

Dr. Glenn D. Prestwich is Presidential Professor of Medicinal Chemistry and Special Presidential Assistant for Faculty Entrepreneurism at the University of Utah, where he leads the Entrepreneurial Faculty Scholars program. His university research includes the study of biomaterials for tissue repair and tissue engineering and biological reagents. He co-founded multiple companies, including Carbylan BioSurgery, Inc. (medical devices), Sentrx Animal Care, Inc. (veterinary wound care), and Glycosan BioSystems, Inc. (cell therapy and research tools). He received the Governor's Medal for Science and Technology for 2006, the 1998 Paul Dawson Biotechnology Award and the 2008 Volwiler Research Award of the AACP, the 2010 University of Utah Distinguished Scholarly and Creative Research Award, and the 2010 "Rooster Prize" of the International Society for Hyaluronan Science.

David Mooney, PhD — Harvard University

Prof. David Mooney is a scientific author and a leader in the research of signaling mechanisms of tissue development. He studies the mechanisms by which chemical (for example, specific cell adhesion molecules) or mechanical signals (for example, cyclic strain) are sensed by cells and alter cells' proliferation and specialization to either promote tissue growth or destruction. This work assists in the understanding of cell behavior post-processing by the organ printing technology. Dr. Mooney is the Pinkas Family Professor of Bioengineering at Harvard University, a member of the National Academy of Engineering, and holds a PhD from the Massachusetts Institute of Technology.

Dr. K. Craig Kent, MD — Columbia University/Weill Cornell Medical College

Dr. K. Craig Kent is the Chairman of the Department of Surgery at the University of Wisconsin School of Medicine and Public Health and previously served as Chief of the Division of Vascular Surgery at both Columbia University and Weill Cornell Medical College. Dr. Kent has authored or co-authored more than 300 manuscripts and chapters that have been published in peer-reviewed journals and textbooks on vascular disease. He is regularly invited to speak at local, national and international scientific meetings on a wide variety of vascular surgery topics. His National Institutes of Health (NIH)-funded basic science lab explores the mechanisms of failure for bypass grafts and angioplasty following vascular intervention. Dr. Kent served as the 2006-2007 president of the Society for Vascular Surgery. Dr. Kent was trained in general surgery at the University of California at San Francisco and completed his vascular surgery fellowship at Brigham and Women's Hospital-Harvard Medical School, where he was awarded the prestigious annual E.J. Wylie Traveling Fellowship.

In March, 2008, we entered into consulting agreements with Dr. Glenn Prestwich, Prof. David Mooney, and Dr. K. Craig Kent, all of whom are members of our Scientific Advisory Board. In April, 2008, we entered into a consulting agreement with Prof. Gordana Vunjak-Novakovic, the fourth member of our Scientific Advisory Board. Per these agreements, we made restricted stock grants of 235,483 shares of our Common Stock to Dr. Prestwich and Prof. Vunjak-Novakovic and 117,741 shares of our Common Stock to Prof. Mooney and Dr. Kent. These grants vest in four annual equal installments with the first installment vesting on the one year anniversary of the member's appointment to our Scientific Advisory Board. In addition, we agreed to pay Prof. Mooney $14,000 per year and Dr. Kent $7,000 per year. Each of the consulting agreements has a four year term which may be terminated by either us or the Scientific Advisory Board member on thirty days notice.

EXECUTIVE COMPENSATION

The following table sets forth information regarding each element of compensation that we paid or awarded to our named executive officers and for the fiscal years ended December 31, 2011 and 2010.

Summary Compensation Table

Name and Principal Position	Year	Salary	Option Awards ($)	Deferred Compensation ($)	All Other Compensation ($)	Total Compensation ($)
Keith Murphy	2011	$217,711	—	—	— (1)	$ 217,711
Chairman, Chief Executive Officer, and President	2010	$ 46,538	—	$ 63,462 (2)	— (3)	$ 110,000
Barry D. Michaels, Chief Financial Officer	2011	$ 74,315	—	—	— (4)	$ 74,315
Sharon Presnell, Executive Vice-President of Research and Development	2011	$157,385	$3,163	—	— (5)	$ 160,548

(1) Excludes payments made for the reimbursement of medical insurance premiums and a personal computer used primarily for business in the aggregate of less than $10,000.
(2) Base salary earned, but payment deferred to future periods.
(3) Excludes payments made for the reimbursement of medical insurance premiums.
(4) Excludes payments made for the reimbursement of medical insurance premiums in the aggregate of less than $10,000.
(5) Excludes payments made for the reimbursement of medical insurance premiums in the aggregate of less than $10,000. Also excludes $24,681 in reimbursed relocation expenses that qualify under IRS guidelines as excludable from income.

Employment Arrangements with Officers and Directors

Keith Murphy, one of our founders, has served as our President and Chief Executive Office since July, 2007. The terms of Mr. Murphy's employment agreement, dated February 28, 2012, calls for him to receive a base salary of $302,500 per year. The term of the employment agreement expires after one year from the effective date, and automatically renews thereafter, unless we provide Mr. Murphy advanced notice of nonrenewal. Mr. Murphy is also eligible to participate in our annual bonus plan and other short-term incentive compensation plans established for our senior executives by our Board of Directors or the Compensation Committee. Mr. Murphy is also entitled to participate in our equity incentive awards plans.

Sharon Presnell became our Executive Vice President of Research and Development in May, 2011. The terms of Dr. Presnell's employment arrangement call for her to receive a base salary of $248,014 per year. Dr. Presnell is also eligible to receive an annual bonus, which is targeted at 30% of her base salary but which may be adjusted based on her individual performance and our performance as a whole. If we terminate Dr. Presnell's employment without cause, we are required to pay her a severance of up to six months of her base salary (in effect immediately prior to the date of the termination of her employment) plus benefits. Dr. Presnell is also entitled to participate in our equity incentive awards plans.

Barry Michaels became our Chief Financial Officer in August, 2011. The terms of Mr. Michaels' employment arrangement call for him to receive a base salary of $230,022 per year. Mr. Michaels is also eligible to receive a bonus based on our and his attainment of certain goals and performance milestones. If we terminate Mr. Michaels' employment without cause we are required to pay Mr. Michaels a severance of up to six months of his base salary (in effect immediately prior to the date of the termination of his employment) plus benefits. Mr. Michaels is also entitled to participate in our equity incentive awards plans.

Outstanding Equity Awards at Fiscal Year End

The following table summarizes the equity awards made to our named executive officers that were outstanding at December 31, 2011.

Name	No. of Securities Underlying Unexercised Options (#) Exercisable	No. of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price	Option Expiration Date	Number of shares or Units of stock that have not vested (#)	Market Value of shares or Units of stock that have not vested ($)
Keith Murphy [1]	—	—	—	—	367,947	$ 57,422
Sharon Presnell [2]	—	896,256	$ 0.08	5/2021	—	—
Barry Michaels	—	—	—	—	—	—

(1) These shares vested in February 2012.
(2) The options were granted on October 14, 2011, and vest in equal installments over four years from May 2011.

2012 Equity Incentive Plan

Our Board of Directors and stockholders adopted the 2012 Equity Incentive Plan (the "2012 Plan") in January 2012. 6,553,986 shares of Common Stock are reserved for issuance under the 2012 Plan. If an incentive award granted under the 2012 Plan expires, terminates, is unexercised or is forfeited, or if any shares are surrendered to us in connection with an incentive award, the shares subject to such award and the surrendered shares will become available for further awards under the 2012 Plan. Additionally, shares used to pay the tax or exercise price of an award will become available for future grant or sale under the 2012 Plan. To the extent an award under the 2012 Plan is paid out in cash rather than shares, the cash payment will not result in reducing the number of shares available for issuance under the 2012 Plan. The maximum number of shares subject to awards

that may be granted to any individual during any calendar year is 2,000,000 and the maximum aggregate amount of cash that may be paid in cash during any calendar year with respect to awards payable in cash is $2,000,000.

The number and class of shares of our Common Stock subject to the 2012 Plan, the number and class of shares subject to any numerical limit in the 2012 Plan, and the number, price and class of shares subject to awards will be adjusted in the event of any change in our outstanding Common Stock by reason of any stock dividend, spin-off, split-up, stock split, reverse stock split, recapitalization, reclassification, merger, consolidation, liquidation, business combination or exchange of shares or similar transaction.

Administration

It is expected that the compensation committee of the Board, or the Board in the absence of such a committee, will administer the 2012 Plan. Subject to the terms of the 2012 Plan, the compensation committee would have complete authority and discretion to determine the terms of awards under the 2012 Plan.

Grants

The 2012 Plan authorizes the grant to 2012 Plan participants of incentive stock options, non-statutory stock options, stock appreciation rights, restricted stock, restricted stock units, performance units, performance shares, and other stock or cash awards intended to comply with Section 162(m) of the Internal Revenue Code (as amended, the "Code") and stock appreciation rights, as described below:

Stock Options. Stock options entitle the participant, upon exercise, to purchase a specified number of shares of common stock at a specified price for a specified period of time. The Administrator may grant incentive and/or non-statutory stock options under the 2012 Plan. The exercise price for each stock option shall be determined by the Administrator but shall not be less than 100% of the fair market value of the common stock on the date of grant. The "fair market value" means, if the stock is listed on any established stock exchange or national market system, the closing sales price of the stock, or, if the common stock is regularly quoted by a recognized securities dealer, but the selling prices are not reported, the mean between the high bid and low asked prices for the common stock on the day of determination, or in the absence of an established market for the stock, or if the stock is not regularly quoted or does not have sufficient trades or bid prices which would reflect the stock's actual fair market value, the fair market value of the common stock will be determined in good faith by the Administrator upon the advice of a qualified valuation expert.

Any stock options granted in the form of an incentive stock option will be intended to comply with the requirements of Section 422 of the Code. Only options granted to employees qualify for incentive stock option treatment.

Each stock option shall expire at such time as the Administrator shall determine at the time of grant. No stock option shall be exercisable later than the tenth anniversary of its grant. A stock option may be exercised in whole or in installments. A stock option may not be exercisable for a fraction of a share. Shares of common stock purchased upon the exercise of a stock option must be paid for in full at the time of exercise in cash or such other consideration determined by the Administrator.

Stock Appreciation Rights. A stock appreciation right ("SAR") is the right to receive a payment equal to the excess of the fair market value of a specified number of shares of common stock on the date the SAR is exercised over the exercise price of the SAR. The exercise price for each SAR shall not be less than 100% of the fair market value of the common stock on the date of grant, and the term of an SAR shall be no more than ten years from the date of grant. At the discretion of the Administrator, the payment upon an SAR exercise may be in cash, in shares equivalent thereof, or in some combination thereof.

Upon exercise of an SAR, the participant shall be entitled to receive payment from Organovo Holdings, Inc. in an amount determined by multiplying the excess of the fair market value of a share of common stock on the date of exercise over the exercise price of the SAR by the number of shares with respect to which the SAR is exercised.

Restricted Stock and Restricted Stock Units. Restricted stock and restricted stock units may be awarded or sold to participants under such terms and conditions as shall be established by the Administrator. Restricted stock and restricted stock units shall be subject to such restrictions as the Administrator determines, including a prohibition against sale, assignment, transfer, pledge or hypothecation, and a requirement that the participant forfeit such shares or units in the event of termination of employment. A restricted stock unit provides a participant the right to receive payment at a future date after the lapse of restrictions or achievement of performance criteria or other conditions determined by the Administrator.

Performance Stock. The Administrator shall designate the participants to whom long-term performance stock/units are to be awarded and determine the number of shares, the length of the performance period and the other vesting terms and conditions of each such award. Each award of performance stock/units shall entitle the participant to a payment in the form of shares/units of common stock upon the attainment of performance goals and other vesting terms and conditions specified by the Administrator. The Administrator may, in its discretion, make a cash payment equal to the fair market value of shares of common stock otherwise required to be issued to a participant pursuant to a Performance Stock Award.

All awards made under the 2012 Plan may be subject to vesting and other contingencies as determined by the Administrator and will be evidenced by agreements approved by the Administrator which set forth the terms and conditions of each award.

Duration, Amendment, and Termination

Unless sooner terminated by the Board, the 2012 Plan will terminate ten years after its adoption. The Board may amend, alter, suspend or terminate the 2012 Plan at any time or from time to time without stockholder approval or ratification, unless necessary and desirable to comply with applicable law. However, before an amendment may be made that would adversely affect a participant who has already been granted an award, the participant's consent must be obtained.

2011 Director Compensation

Our directors play a critical role in guiding our strategic direction and overseeing the management of the Company. Ongoing developments in corporate governance and financial reporting have resulted in an increased demand for such highly qualified and productive public company directors. The many responsibilities and risks and the substantial time commitment of being a director of a public company require that we provide adequate incentives for our directors' continued performance by paying compensation commensurate with our directors' workload. Our non-employee directors are compensated based upon their respective levels of board participation and responsibilities, including service on Board Committees. Mr. Murphy, our President and Chief Executive Officer, receives no separate compensation for his service as a director.

The following table sets forth compensation earned and paid to each non-employee director for service as a director during 2011.

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($)	Option Awards ($)	All Other Compensation ($)	Total ($)
Robert Baltera, Jr. (1)	—	$2,898	—	—	$2,898
Andras Forgacs (2)	—	—	—	—	—
Gabor Forgacs (3)	—	—	—	—	—

(1) In October, 2009 we entered into a Memorandum of Understanding with Robert Baltera, Jr. in connection with his ongoing service as one of our directors. Pursuant to this arrangement we granted Mr. Baltera 36,228 shares of restricted Common Stock, which vest in four equal annual installments, commencing one year

from the date of grant, provided Mr. Baltera remains a director on the applicable vesting date. In October 2011 we additionally granted Mr. Baltera 32,423 shares of restricted Common Stock, one quarter of which vested that month and the remainder of which will vest in three equal annual installments. Our arrangement with Mr. Baltera is terminable at will by either party.

(2) In February, 2008 we issued 60,365 shares of restricted Common Stock to Andras Forgacs as compensation for his services as a director. These shares vested to the extent of 25% of the original grant on the first anniversary of the grant date, and thereafter at the rate of 6.25% of the original grant on a quarterly basis, provided that Mr. Forgacs remains a director on the applicable vesting date.

(3) Gabor Forgacs resigned as a director effective February 8, 2012.

Our director compensation is overseen by the Compensation Committee, which makes recommendations to the Board of Directors on the appropriate amount and structure of our programs in light of then-current competitive practice. The Compensation Committee receives advice and recommendations from Compensia, our compensation consultant, with respect to its determination on director compensation matters. In September 2012, the Compensation Committee adopted our current non-employee director compensation policy, pursuant to which non-employee directors are compensated for their services on our Board of Directors.

Pursuant to this policy, our non-employee directors will receive a fee of $2,000 for attending each board meeting and $1,000 for attending each committee meeting (for which he or she is a member) and will be reimbursed for reasonable out-of-pocket expenses incurred in attending such meetings. Committee chairs will receive an additional annual fee as follows: Audit Committee, $10,000; Compensation Committee, $6,000; and Nominating and Governance Committee, $5,500. In the event we appoint a non-employee director to serve either as a Non-Executive Chairman or a Lead Director, such direct will receive an annual retainer of $30,000 if serving as the Non-Executive Chairman or $18,000 if serving as the Lead Director.

In addition, pursuant to this policy, non-employee directors will receive equity-based compensation under our 2012 Equity Incentive Plan. Each non-employee director will receive an annual grant of options to acquire the number of shares of our common stock equal to 0.04% of our outstanding shares of common stock as of the end of our most recently completed fiscal quarter (rounded to the nearest 500 share) the day after each annual meeting of stockholders. These options will be granted at fair market value on the grant date, vest on the earlier of one year from the date of grant or the next annual meeting of stockholders and expire on the tenth anniversary of the grant date. Non-employee directors will also receive a grant of options to acquire the number of shares of our common stock equal to 0.07% of our outstanding shares of common stock as of the end of our most recently completed fiscal quarter (rounded to the nearest 500 share) upon his or her initial election to our board. These options will be granted at fair market value on the grant date, vest ratably on a quarterly basis over the first three anniversaries of the grant date and expire on the tenth anniversary of the grant date.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following tables set forth certain information regarding the beneficial ownership of our common stock as of September 7, 2012 by (i) each person who, to our knowledge, beneficially owns more than 5% of our common stock; (ii) each of our directors and named executive officers; and (iii) all of our executive officers and directors as a group. Unless otherwise indicated in the table or the footnotes to the following table, each person named in the table has sole voting and investment power and that person's address is c/o Organovo Holdings, Inc., 6275 Nancy Ridge Dr., San Diego, California 92121.

We determined the number of shares of common stock beneficially owned by each person under rules promulgated by the SEC, based on information obtained from Company records and filings with the SEC. The information is not necessarily indicative of beneficial ownership for any other purpose. Under these rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power and also any shares which the individual or entity had the right to acquire within sixty days of September 7, 2012. Applicable percentages are based on 44,280,355 shares of common stock outstanding as of September 7, 2012.

Name and address of Beneficial Owner	No. Shares of Common Stock Beneficially Owned	Percent of Common Stock Outstanding
5% or Greater Stockholders:		
Kevin Kimberlin [6]	5,489,433	12.4%
1700 East Putnam Avenue Suite 401 Greenwich, CT 06870	6,057,741 [3]	13.7%
Gabor Forgacs		
Directors:		
Keith Murphy [1]	6,311,092 [2]	14.3%
Andras Forgacs [1]	766,588	1.7%
Robert Baltera, Jr. [1]	126,392 [4]	*
James Glover [1]	—	*
Adam Stern [1][5]	1,604,484	4.0%
c/o Spencer Trask Ventures 750 Third Avenue New York, NY 10017		
Executive Officers:		
Barry D. Michaels [1]	207,500 [8]	0.5% or *
Sharon Collins Presnell [1]	224,064 [9]	*
Eric Michael David [1]	814,306 [10]	1.8%
Michael Renard [1]	— [11]	*
All directors and executive officers as a group (9 persons)	10,213,296 [7]	23.1%

* Less than 1.0%

(1) Executive officer and/or director.

(2) 255,255 of these shares are held by Equity Trust Co., Custodian FBO Keith Murphy IRA. Includes warrants to purchase 30,000 shares of Common Stock at an exercise price of $1.00 per share.

(3) Includes warrants to purchase 3,750 shares of Common Stock at an exercise price of $1.00 per share.

(4) 18,114 of these shares vested in or before October, 2011. Includes warrants to purchase 28,000 shares of Common Stock at an exercise price of $1.00 per share.

(5) Represents (i) 741,395 shares owned by Adam Stern, (ii) 360,000 shares underlying warrants owned by Adam Stern; (iii) 158,870 shares owned by ST Neuroscience Partners, LLC; (iv) 211,827 shares owned by Pavilion Capital Partners, LLC; and (v) 132,392 shares owned by Piper Venture Partners, LLC. Does not include shares underlying warrants held by the Placement Agent or its affiliates issued in connection with the Bridge Financing or the Offering.

(6) Represents (i) 1,082,489 shares held by Spencer Trask Investment Partners, LLP and (ii) 4,406,943 shares underlying warrants owned by Spencer Trask Ventures, Inc. issued in connection with the Bridge Financing or the Offering.

(7) Includes warrants to purchase 448,000 shares of Common Stock at an exercise price of $1.00 per share. Does not include shares underlying warrants issued to the Placement Agent in connection with the Bridge Financing or the Offering.

(8) Includes warrants to purchase 10,000 shares of Common Stock at an exercise price of $1.00 per share. Includes 79,687 vested stock options. Does not include 62,500 additional shares of common stock subject to future vesting pursuant to a stock option agreement.

(9) Stock option shares that will vest within 60 days of June 1, 2012. Does not include 847,192 additional shares of common stock subject to future vesting pursuant to the terms of stock option agreements.

(10) Includes warrants to purchase 20,000 shares of Common Stock at an exercise price of $1.00 per share. Does not include 600,000 shares of common stock subject to future vesting pursuant to the terms of a stock option agreement.

(11) Does not include 600,000 shares of common stock subject to future vesting pursuant to the terms of a stock option agreement.

Changes in Control

We are not aware of any or a party to arrangements, including any pledge by any person of our securities, the operation of which may at a subsequent date result in a change of control.

Section 16(a) Beneficial Ownership Reporting Compliance.

Section 16(a) of the Securities Exchange Act of 1934, as amended (the “Act”), requires our executive officers and directors and persons who beneficially own more than 10% of our common stock to file initial reports of beneficial ownership and reports of changes in beneficial ownership with the SEC. Such persons are required by SEC regulations to furnish us with copies of all Section 16(a) forms filed by such persons.

To the Company’s knowledge, no person who, during the fiscal year ended December 31, 2011, was a director or officer of the Company, or beneficial owner of more than ten percent of the Company’s common stock (which is the only class of securities of the Company registered under Section 12 of the Act), failed to file on a timely basis reports required by Section 16 of the Act during such fiscal year. The foregoing is based solely upon a review by the Company of Forms 3 and 4 relating to the most recent fiscal year as furnished to the Company under Rule 16a-3(d) under the Act, and Forms 5 and amendments thereto furnished to the Company with respect to its most recent fiscal year, and any representation received by the Company from any reporting person that no Form 5 is required.

CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports filed pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act") is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial and accounting officer, as appropriate, to allow timely decisions regarding required disclosure.

Under the supervision of our Chief Executive Officer and our Chief Financial Officer, and with the participation of all members of management, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Exchange Act. Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were designed and operating effectively as of September 30, 2012.

Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) that occurred during the fiscal quarter ended September 30, 2012 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and our Chief Financial Officer, do not expect that our disclosure controls or our internal control over financial reporting will prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of controls effectiveness to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

CORPORATE GOVERNANCE

Overview

We are committed to maintaining the highest standards of business conduct and corporate governance, which we believe are fundamental to the overall success of our business, serving our stockholders well and maintaining our integrity in the marketplace. Our Corporate Governance Guidelines and Code of Business Conduct, together with our Certificate of Incorporation, Bylaws and charters of our Board Committees, form the basis for our corporate governance framework.

Our Corporate Governance Guidelines (which includes our standard for determining director independence), our Code of Business Conduct (which includes our policies on ethics and compliance), our Board Committee charters and other corporate governance information can be found in the "Investor Relations" section of our website accessible at *www.organovo.com*. Any stockholder also may request copies of these materials in print, without charge, by contacting our Corporate Secretary at Organovo Holdings, Inc., 6275 Nancy Ridge Dr., San Diego, California 92121.

Corporate Governance Guidelines

Our Corporate Governance Guidelines are designed to ensure effective corporate governance of our Company. Our Corporate Governance Guidelines cover topics including, but not limited to, director qualification criteria, director responsibilities, director compensation, director orientation and continuing education, communications from stockholders to the Board, succession planning and the annual evaluation of the Board and its committees. Our Corporate Governance Guidelines are reviewed regularly by the Nominating and Corporate Governance Committee of our Board and revised when appropriate.

Code of Business Conduct

We have adopted a Code of Business Conduct that applies to all of our directors, officers, and employees, including our principal executive officer and principal financial officer. We intend to review this Code of Business Conduct on an annual basis and modify it as appropriate. A copy of our Code of Business Conduct, and any amendments to this code, or any waivers of its requirements, is located on our website at *www.organovo.com*, as permitted under SEC rules and regulations. We will disclose within four business days any substantive changes in or waivers of the Code of Business Conduct granted to our principal executive officer, principal financial officer, principal accounting officer, or controller, or persons performing similar functions, by posting such information on our website as set forth above rather than by filing a Form 8-K with the SEC.

Attendance at Meetings

No meetings of our Board of Directors or any committee thereof took place prior to our reverse merger. Since our reverse merger in February 2012, each director has attended, in person or by telephone, at least 75% of the total number of meetings of both the Board of Directors and Board Committees on which such director serves. Board members are expected to attend the Annual Meeting.

Board Composition

Our Board of Directors is authorized to have five members. There are no family relationships among any of our directors and executive officers. Our Board of Directors is comprised of three classes, as follows:

- Class I, whose member is Keith Murphy. The term of the Class I director expires at the Annual Meeting;
- Class II, whose members are Andras Forgacs and Adam Stern. The terms of the Class II directors expire at our 2013 Annual Meeting of Stockholders; and
- Class III, whose members are Robert Baltera Jr. and James Glover. The terms of the Class III directors expire at our 2014 Annual Meeting of Stockholders.

At each annual meeting of stockholders, the successors to directors whose terms then expire will serve until the third annual meeting following their election and until their successors are elected and qualified. The authorized number of directors may be changed only by resolution of our Board of Directors. Any additional directorships resulting from an increase in the number of directors will be distributed between the three classes so that, as nearly as possible, each class will consist of one-third of the total number of directors. Our directors will hold office until their successors have been elected and qualified or until their earlier death, resignation, disqualification or removal for cause by stockholders in accordance with our Bylaws.

Board of Directors Leadership Structure

Our Board of Directors believes that Mr. Murphy's service as both Chairman of the Board and Chief Executive Officer is in the best interests of the Company and its stockholders at this time. Mr. Murphy possesses detailed and in-depth knowledge of our technology and the issues, opportunities and challenges we face as a company. The Board determined that he is the person best positioned to develop agendas that ensure that our Board's time and attention are focused on the most critical matters. Our Board also determined that his combined role enables decisive leadership, ensures clear accountability and enhances our ability to communicate our message and strategy clearly and consistently to stockholders, employees, customers and research partners. Each of the Board Committees are comprised entirely of independent directors, and our Board believes that these Board Committees provide effective oversight of our executive officers. Although our Board currently believes that the combination of the Chairman and Chief Executive Officer roles is appropriate in the current circumstances, our Bylaws and Corporate Governance Guidelines provide our Board with the flexibility to separate the positions of Chairman of the Board and Chief Executive Officer. While we do not currently intend to separate these positions, a change in leadership structure would be made if our Board determines it is in the best long-term interests of the Company and its stockholders.

Executive Sessions of Independent Directors

The independent directors of the Board will meet in executive session at least three times each year. The Presiding Director will chair these meetings, or if no Presiding Director has been selected by the independent directors, then an independent director will be selected at the beginning of each executive session to preside over the meeting.

Board's Role in Risk Oversight

The Board of Directors is responsible for overseeing our risk management. To assist its oversight function, the Board has delegated many risk oversight functions to the Audit Committee. Under its charter, the Audit Committee is responsible for providing advice to the Board with respect to our risk evaluation and mitigation processes, including, in particular, the processes utilized by management for identifying, evaluating, and mitigating strategic, financial, operational, regulatory, and external risks inherent in our business. In addition to the Audit Committee's work in overseeing risk management, our full Board regularly engages in discussions of the most significant risks that we face and how these risks are being managed.

Our executive officers provide our Board and its committees with regular updates about our strategies and objectives and the risks inherent within them at Board and Committee meetings. Board and Committee meetings also provide a venue for directors to discuss issues of concern with management. Our Board of Directors and Committees can call special meetings when necessary to address specific issues or matters that should be addressed before the next regularly scheduled meeting. In addition, our directors have access to our management at all levels to discuss any matters of interest, including those related to risk. Those members of management most knowledgeable of the issues attend Board meetings to provide additional insight into items being discussed, including risk exposures. Our Board believes that the work undertaken by the Audit Committee, together with the work of the full Board, the President and the Chief Executive Officer, enables the Board to effectively oversee our risk management function.

Stockholder Recommendations for Director Nominees

In nominating candidates for election as a director, the Nominating and Corporate Governance Committee will consider a reasonable number of candidates recommended by a single stockholder who has held over 0.1% of our common stock for over one year and who satisfies the notice, information and consent provisions set forth in our Bylaws and Corporate Governance Guidelines. Stockholders who wish to recommend a candidate may do so by writing to the Nominating and Corporate Governance Committee in care of the Corporate Secretary, Organovo

Holdings, Inc., 6275 Nancy Ridge Dr., San Diego, California 92121. The Nominating and Corporate Governance Committee will use the same evaluation process for director nominees recommended by stockholders as it uses for other director nominees. A printed copy of our Bylaws and Corporate Governance Guidelines may be obtained by any stockholder upon request to our Corporate Secretary.

Identification and Evaluation of Director Nominees

Our Nominating and Corporate Governance Committee uses a variety of methods for identifying and evaluating director nominees. Our Nominating and Corporate Governance Committee regularly assesses the appropriate size and composition of the Board, the needs of the Board and the respective Board Committees, and the qualifications of candidates in light of these needs. Candidates may come to the attention of the Nominating and Corporate Governance Committee through stockholders, management, current members of the Board, or search firms. The evaluation of these candidates may be based solely upon information provided to the Nominating and Corporate Governance Committee or may also include discussions with persons familiar with the candidate, an interview of the candidate or other actions the Nominating and Corporate Governance Committee deems appropriate, including the use of third parties to review candidates.

While we do not have a stand-alone diversity policy, in considering whether to recommend any director nominee, including candidates recommended by stockholders, we believe that the backgrounds and qualifications of our directors, considered as a group, should provide a significant mix of experience, knowledge and abilities that will allow our Board and its Committees to fulfill their respective responsibilities. As set forth in our Corporate Governance Guidelines, these criteria generally include, among other things, an individual's business experience and skills (including skills in core areas such as operations, management, technology, accounting and finance, strategic planning and international markets), as well as independence, judgment, knowledge of our business and industry, professional reputation, leadership, integrity and ability to represent the best interests of the Company's stockholders. In addition, the Nominating and Corporate Governance Committee will also consider the ability to commit sufficient time and attention to the activities of the Board, as well as the absence of any potential conflicts with the Company's interests. The Nominating and Corporate Governance Committee does not assign specific weights to particular criteria and no particular criterion is necessarily applicable to all prospective director nominees. Our Board will be responsible for selecting candidates for election as directors based on the recommendation of the Nominating and Corporate Governance Committee.

We believe that our current Board includes individuals with a strong background in executive leadership and management, accounting and finance, fundraising, and Company and industry knowledge. In addition, each of our directors has a strong professional reputation and has shown a dedication to his profession and community. We also believe that our directors' diversity of backgrounds and experiences results in different perspectives, ideas, and viewpoints, which make our Board more effective in carrying out its duties. We believe that our directors hold themselves to the highest standards of integrity and that they are committed to representing the long-term interests of our stockholders.

The Nominating and Corporate Governance Committee and the Board believe that each of the director nominees for election at the annual meeting brings a strong and unique set of qualifications, attributes and skills and provides the Board as a whole with an optimal balance of experience, leadership and competencies in areas of importance to our Company. Under "Proposal One—Election of Directors," we provide an overview of each directors principal occupation, business experience and other directorships, together with other key attributes that we believe provide value to the Board, the Company and its stockholders.

Director Independence

The Board has adopted the definition of director independence set forth in the listing standards of the Nasdaq Stock Market for its standard to assist it in making its determination of director independence. The Board assesses on a regular basis, and at least annually, the independence of our directors and, based on the recommendation of the Nominating and Corporate Governance Committee, makes a determination as to which directors are independent.

The Board has determined that the following directors, are independent under our Corporate Governance Guidelines: Messrs. Baltera and Glover. In making this determination, our Board of Directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our Board of Directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

Board Committees

Our Board of Directors has established the following committees: an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee. The composition and responsibilities of each committee are described below. Directors serve on these committees until their resignation or until otherwise determined by our Board of Directors.

Membership of the Committees of the Board

	Audit	Compensation	Nominating and Corporate Governance
Robert Baltera Jr.	X	X	Chair
James Glover	Chair	Chair	X

Audit Committee. Our Audit Committee oversees our corporate accounting and financial reporting process. The responsibilities of our Audit Committee include, among other things:

- appointing our independent registered public accounting firm and determining the funding for audit and review by them of our consolidated financial statements and any permissible non-audit services;
- evaluating and overseeing our independent registered public accounting firm's independence and performance;
- reviewing our annual and quarterly consolidated financial statements and reporting and discussing the financial statements and reports with our independent auditors and management;
- approving the disclosures in and filing of our periodic reports on Form 10-K and Form 10-Q to be filed with the SEC;
- reviewing with our independent auditors and management any significant issues that arise regarding accounting principles and financial statement presentation, and matters concerning the scope, adequacy and effectiveness of our internal controls and disclosure controls and procedures;
- establishing procedures for the receipt, retention and treatment of complaints received by us regarding internal controls, accounting or auditing matters;
- establishing procedures for the confidential, anonymous submissions by employees regarding accounting, internal controls or accounting matters;
- reviewing and, if appropriate, approving proposed related party transactions; and
- developing, reviewing and amending our Code of Business Conduct.

Both our independent auditors and management periodically meet separately with our Audit Committee. A copy of our Audit Committee charter is available on our website *www.organovo.com*.

The current members of our Audit Committee are Messrs. Glover and Baltera. Mr. Glover serves as chairman of the Audit Committee. Our Board of Directors has determined that all of the members of our Audit Committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC.

Our Board of Directors has determined that each member of our Audit Committee is an Audit Committee financial expert as defined under the applicable rules of the SEC. Our Board of Directors has determined that all of the members of our Audit Committee are independent directors as defined under the applicable rules and regulations of the SEC and the Corporate Governance Guidelines.

Compensation Committee. Our Compensation Committee adopts and administers the compensation policies, plans and benefit programs for our executive officers and all other members of our executive team. The responsibilities of this committee include, among other things:

- determining the compensation and other terms of employment of our executive officers and senior management, and reviewing and approving corporate performance goals and objectives relevant to such compensation;
- recommending to our Board of Directors the type and amount of compensation to be paid or awarded to members of our Board of Directors;
- evaluating and recommending to our Board of Directors the equity incentive plans, compensation plans and similar programs advisable for us, as well as modification or termination of existing plans and programs;
- administering the issuance of stock options and other equity incentive arrangements under our equity incentive plans;
- establishing policies with respect to equity compensation arrangements; and
- reviewing and approving the terms of employment agreements, severance arrangements, change-in-control protections and any other compensatory arrangements for our executive officers and senior management.

Our Compensation Committee with the input of senior management evaluates potential risks related to our compensation policies and practices for employees and has determined that we have no compensation risks that are reasonably likely to have a material adverse effect on our company. We structure our compensation to address company-wide risk. This is accomplished in part by tying compensation to corporate goals and individual performance goals. These goals can be adjusted annually to address risks identified in the annual risk assessment. We also use a mix of different compensation elements to balance short-term awards versus long-term awards to align compensation with our business strategy and stockholders' interests. We believe the combination of base salary, performance-based cash awards and stock-based incentive awards with multi-year vesting periods is balanced and serves to motivate our employees to accomplish our business plan without creating risks that are reasonably likely to have a material adverse effect on our company. We have adopted a Compensation Committee charter, a copy of which is available on our website at *www.organovo.com*.

The current members of our Compensation Committee are Messrs. Glover and Baltera. Mr. Glover serves as the chairman of the Compensation Committee. Our Board of Directors has determined that all of the members of our Compensation Committee are independent directors under the applicable rules and regulations of the SEC and our Corporate Governance Guidelines.

Nominating and Corporate Governance Committee. Our Nominating and Corporate Governance Committee is responsible for, among other things, making recommendations regarding corporate governance, the composition of our Board of Directors, identification, evaluation and nomination of director candidates and the structure and composition of committees of our Board of Directors.

The responsibilities of this committee include, among other things:

- developing and maintaining a current list of the functional needs and qualifications of members of our Board of Directors;

- evaluating director performance on the Board of Directors and applicable committees of the Board of Directors and determining whether continued service on our Board of Directors is appropriate;
- interviewing, evaluating, nominating and recommending individuals for membership on our Board of Directors;
- evaluating stockholder nominations of candidates for election to our Board of Directors;
- developing, reviewing and amending a set of corporate governance policies and principles;
- considering questions of possible conflicts of interest of directors as such questions arise; and
- recommending to our Board of Directors the establishment of such special committees as may be desirable or necessary from time to time in order to address ethical, legal, business or other matters that may arise.

A copy of our Nominating and Corporate Governance Committee charter is available on our website *www.ogranovo.com*.

The current members of our Nominating and Corporate Governance Committee are Messrs. Baltera and Glover. Mr. Baltera serves as the chairman of the committee. Our Board of Directors has determined that all of the members of our Nominating and Corporate Governance Committee are independent directors under the applicable rules and Corporate Governance Guidelines.

Compensation Committee Interlocks and Insider Participation

No member of our Compensation Committee is or has at any time during the past year been one of our officers or employees. None of our executive officers currently serves or in the past year has served as a member of the Board of Directors or Compensation Committee of any entity that has one or more executive officers serving on our Board of Directors or Compensation Committee.

Communicating with the Board

Our Corporate Governance Guidelines establish procedures by which stockholders and other interested parties may communicate with the Board, any Committee of the Board, any individual director (including the Presiding Director) or the independent non-employee directors as a group. Such parties can send communications by mail to the Board in care of the Corporate Secretary, 6275 Nancy Ridge Dr., San Diego, California 92121 . The name or title of any specific recipient or group should be noted in the communication. Communications from stockholders are distributed by the Corporate Secretary to the Board or to the Committee or director(s) to whom the communication is addressed, however the Corporate Secretary will not distribute items that are unrelated to the duties and responsibilities of the Board, such as spam, junk mail and mass mailings, business solicitations and advertisements, and communications that advocate the Company’s engaging in illegal activities or that, under community standards, contain offensive, scurrilous or abusive content.

Compensation Consultant

In the last fiscal year, the Compensation Committee has selected and retained Compensia, Inc. as independent executive compensation consultants. Compensia provides compensation consulting services to the Compensation Committee, reports directly to the Compensation Committee, only provides services that are requested by the Compensation Committee and works with the Company’s management only on matters for which the Compensation Committee is responsible.

Policy on Stock Hedging

All directors and executive officers are prohibited from engaging in short-term or speculative transactions involving our securities, such as publicly traded options, short sales, puts and calls, and hedging transactions.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Since January 2010, there has not been any transaction or series of similar transactions to which we were or are a party in which the amount involved exceeded or exceeds the lesser of $120,000 or one percent of the average of our total assets at the applicable year end and in which any of our directors or executive officers, any holder of more than 5% of any class of our voting securities or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than the compensation arrangements described in "Executive Compensation" and the transactions set forth below. We believe that we have executed all of the transactions set forth below on terms no less favorable to us than we could have obtained from unaffiliated third parties.

Transactions with Public Company Shareholders

Forward Split, Split-Off and Share Cancellation

Real Estate Restoration and Rental, Inc.'s ("RERR") common stock was forward-split on a 10.5913504 for 1 basis, with a record date of January 23, 2012 and an effective date of January 31, 2012. As a result of this stock split and the Reincorporation Merger, there were approximately 6,000,000 shares of Organovo Holdings, Inc.'s ("Holdings-Delaware") common stock issued and outstanding before taking into account the issuance of shares of common stock to purchasers of Units (as defined below) in the Offering (as defined below) and in the Merger and after giving pro forma effect to the Split-Off, as discussed below.

Upon the closing of the Merger, Holdings-Delaware transferred all of its operating assets and liabilities to Organovo Split Corp., a Delaware corporation ("PSOS"), and split-off PSOS (the "Split-Off") through the sale of all of the outstanding capital stock of PSOS to its executive officers, directors and their affiliates (the "Split-Off Shareholders"). In connection with the Split-Off, 5,000,000 shares of common stock held by the Split-Off Shareholders were surrendered and cancelled without further consideration, other than the receipt of PSOS shares. An additional 1,236,000 shares of common stock were cancelled by other shareholders of Holdings-Delaware for no or nominal consideration. Concurrently with the closing of the Merger and in contemplation of the Merger, we completed the initial closing of a private offering (the "Offering") of our securities ("Units"), at a price of $1.00 per Unit. Each Unit consists of one share of Common Stock and a warrant to purchase one share of Common Stock.

Transactions with the Placement Agent and its Related Parties

We retained Spencer Trask Ventures, Inc. to serve as our placement agent (the "Placement Agent") in connection with the Bridge Financing (as defined below), the Merger and the Offering as described herein. Adam Stern, one of our directors, is a Senior Managing Director of the Placement Agent.

The Placement Agent acted as finder to Organovo in connection with our bridge financing, in which Organovo issued $1,500,000 in principal amount of its 6% convertible promissory notes due March 31, 2012 (the "Bridge Notes") and warrants to purchase an aggregate of 1,500,000 shares of Organovo's common stock at a price of $1.00 per share (the "Bridge Warrants") to accredited investors (the "Bridge Financing"). The Placement Agent was issued warrants to purchase Organovo warrants that automatically converted into warrants to purchase 20% of the shares of Holdings-Delaware Common Stock underlying the Units issued upon the conversion of the Bridge Notes in the Offering at a price of $1.00 per share as compensation for acting as a finder in the Bridge Financing. These warrants were exchanged at the initial close of the Offering for warrants (which are identical to the Placement Agent Warrants (as defined below) discussed below) to purchase 610,155 shares of common stock at an exercise price of $1.00 per share.

Prior to the initial closing of the Offering, several related parties to the Placement Agent purchased an aggregate of 219,705 shares of Holdings-Delaware's common stock (2,326,974 shares on a post stock split adjusted basis) from various shareholders of Holdings-Delaware. The aggregate purchase price paid to such shareholders by the related parties for such shares was approximately $155,000. All of the foregoing shares of common stock are subject to a lock-up agreement. See "Lock-ups" below.

We engaged the Placement Agent as our exclusive placement agent in connection with a the Offering. For its services, we paid the Placement Agent (i) a cash fee equal to 10% of the gross proceeds raised in the Offering and (ii) a non-accountable expense allowance equal to 3% of the gross proceeds raised in the Offering. In addition, we granted to the Placement Agent or its designees, for nominal consideration, five-year warrants ("Placement Agent Warrants") to purchase shares of common stock at an exercise price of $1.00 per share. The placement agent and its selected dealers were paid total cash commissions of $1,372,260 and the Placement Agent was paid an expense allowance of $411,678 and was issued Placement Agent Warrants to purchase 6,099,195 shares of common stock (including 610,155 warrants issued in connection with issuance of the bridge promissory notes and subsequently exchanged for new warrants in the Merger).

We have agreed to engage the Placement Agent as our warrant solicitation agent in the event the warrants issued to investors in the Offering (the "Investor Warrants") are called for redemption and shall pay a warrant solicitation fee to the Placement Agent equal to five (5%) percent of the amount of funds solicited by the Placement Agent upon the exercise of the Investor Warrants following such redemption.

The Placement Agent was granted the right to designate one member to our Board of Directors and has designated Adam Stern to fill such Board seat.

The price of the Units was determined following our discussions with the Placement Agent. Among the factors considered in the negotiations were our limited operating history, our history of losses, an assessment of our management and our proposed operations, our current financial condition, the prospects for the industry in which we operate, the prospects for the development of our business with the capital raised in the Offering and the general condition of the securities markets at the time of the Offering. The Offering price of the Units or the exercise price of the Investor Warrants did not necessarily bear any relationship to our assets, book value or results of operations or any other generally accepted criterion of value.

As a result of these transactions, as of April 13, 2012, Mr. Stern reported holding 741,395 shares of common stock and warrants to purchase 360,000 shares of common stock. He also reported indirect beneficial ownership of 158,870 shares owned by ST Neuroscience Partners, LLC, 211,827 shares owned by Pavilion Capital Partners, LLC; and 132,392 shares owned by Piper Venture Partners, LLC. As of April 27, 2012, Mr. Kimberlin reported indirect beneficial ownership of 1,082,489 shares held by Spencer Trask Investment Partners, LLP and warrants to purchase 4,406,943 shares owned by Spencer Trask Ventures, Inc. issued in connection with the Bridge Financing or the Offering.

We have agreed to indemnify the Placement Agent and other broker-dealers who are FINRA members selected by the Placement Agent to offer and sell Units, to the fullest extent permitted by law for a period of four (4) years from the closing of the Offering, against certain liabilities that may be incurred in connection with the Offering, including certain civil liabilities under the Securities Act, and, where such indemnification is not available, to contribute to the payments the Placement Agent may be required to make in respect of such liabilities. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to the Placement Agent, pursuant to the foregoing provisions or otherwise, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

Lock-ups

Officers, directors and holders of 5% or more of our common stock have agreed to "lock-up" and not sell or otherwise transfer or hypothecate any of their shares for a term equal to the earlier of (i) twelve (12) months from the Closing Date of the Merger; or (ii) six (6) months following the effective date of the registration statement registering the shares of common stock that were sold in the Offering.

Warrant Agent Agreement

The Company has retained Aegis Capital to act as its Warrant Agent for the Offer to Amend and Exercise pursuant to a Warrant Agent Agreement attached as Exhibit (d)(1) to its Schedule TO (the "Warrant Agent Agreement"). For a discussion of the Warrant Agent Agreement, see Section 21, "Fees and Expenses" in the Offer to Amend and Exercise. Adam K. Stern, Head of Private Equity Banking of Aegis Capital, is a director of the Company.

Related Party Transaction Policy and Procedures

Pursuant to our Related Party Transaction and Procedures, our executive officers, directors, and principal stockholders, including their immediate family members and affiliates, are prohibited from entering into a related party transaction with us without the prior consent of our Audit Committee or our independent directors. Any request for us to enter into a transaction with an executive officer, director, principal stockholder, or any of such persons' immediate family members or affiliates, in which the amount involved exceeds $120,000 must first be presented to our Audit Committee for review, consideration and approval. In approving or rejecting the proposed agreement, our Audit Committee will consider the relevant facts and circumstances available and deemed relevant, including, but not limited, to the risks, costs and benefits to us, the terms of the transaction, the availability of other sources for comparable services or products, and, if applicable, the impact on a director's independence. Our Audit Committee shall approve only those agreements that, in light of known circumstances, are in, or are not inconsistent with, our best interests, as our Audit Committee determines in the good faith exercise of its discretion.

DESCRIPTION OF SECURITIES

Authorized Capital Stock

As of September 30, 2012, our authorized capital stock consisted of 150,000,000 shares of Common Stock, par value $0.001 per share, and 25,000,000 shares of preferred stock, par value $0.001 per share.

Description of Common Stock

The holders of Common Stock are entitled to one vote per share on all matters submitted to a vote of the stockholders, including the election of directors. Generally, all matters to be voted on by stockholders must be approved by a majority (or, in the case of election of directors, by a plurality) of the votes entitled to be cast by all shares of Common Stock that are present in person or represented by proxy. Except as otherwise provided by law, amendments to the certificate of incorporation generally must be approved by a majority of the votes entitled to be cast by all outstanding shares of Common Stock. The certificate of incorporation does not provide for cumulative voting in the election of directors. The Common Stock holders will be entitled to such cash dividends as may be declared from time to time by the Board from funds available. Upon our liquidation, dissolution or winding up, the Common Stock holders will be entitled to receive pro rata all assets available for distribution to such holders.

Description of Preferred Stock

Our Preferred Stock, par value $0.001 per share, may be issued from time to time in one or more series pursuant to a resolution or resolutions providing for such issue duly adopted by our Board of Directors (authority to do so being hereby expressly vested in the Board of Directors). The Board of Directors is further authorized, subject to limitations prescribed by law, to fix by resolution or resolutions the designations, powers, preferences and rights, and the qualifications, limitations or restrictions thereof, of any wholly unissued series of Preferred Stock, including without limitation authority to fix by resolution or resolutions the dividend rights, dividend rate, conversion rights, voting rights, rights and terms of redemption (including sinking fund provisions), redemption price or prices, and liquidation preferences of any such series, and the number of shares constituting any such series and the designation thereof, or any of the foregoing.

Registration Rights Agreement

We were required to file the registration statement of which this prospectus forms a part pursuant to the terms and provisions of a Registration Rights Agreement. A form of the Registration Rights Agreement is filed as Exhibit 10.5 to the registration statement of which this prospectus forms a part. The holders of any registrable securities removed from the registration statement a result of a Rule 415 or other comment from the SEC shall have “piggyback” registration rights for the shares of common stock or common stock underlying such warrants with respect to any registration statement filed by us following the effectiveness of the registration statement which would permit the inclusion of these shares.

We have agreed to use reasonable efforts to maintain the effectiveness of this registration statement until the earlier of (i) the one year anniversary of the date the registration statement of which this prospectus forms a part is declared effective by the SEC or (ii) until Rule 144 of the Securities Act is available to the selling security holders with respect to all of their shares.

Anti-Takeover Effects of Provisions of Delaware State Law

Anti-takeover provisions in our certificate of incorporation and Delaware law could make an acquisition more difficult and could prevent attempts by our stockholders to remove or replace current management.

Anti-takeover provisions of Delaware law and in our certificate of incorporation and our bylaws may discourage, delay or prevent a change in control of our company, even if a change in control would be beneficial to our stockholders. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. In particular, under our certificate of incorporation our board of directors may issue up to 25,000,000 shares of preferred stock with rights and privileges that might be senior to our common stock, without the consent of the holders of the common stock. Moreover, without any further vote or action on the part of the stockholders, the board of directors would have the authority to determine the price, rights, preferences, privileges, and restrictions of the preferred stock. This preferred stock, if it is ever issued, may have preference over, and harm the rights of, the holders of common stock. Although the issuance of this preferred stock would provide us with flexibility in connection with possible acquisitions and other corporate purposes, this issuance may make it more difficult for a third party to acquire a majority of our outstanding voting stock. Similarly, our authorized but unissued common stock is available for future issuance without stockholder approval.

Warrants

For a description of our warrants, please see the Offer to Amend and Exercise.

Indemnification of Directors and Officers.

Under Section 145 of the General Corporation Law of the State of Delaware, we may indemnify our directors and officers against liabilities they may incur in such capacities, including liabilities under the Securities Act. Our certificate of incorporation provides that, pursuant to Delaware law, our directors shall not be liable for monetary damages for breach of the directors' fiduciary duty of care to us and our stockholders. This provision does not eliminate the duty of care, and in appropriate circumstances equitable remedies such as injunctive or other forms of non-monetary relief will remain available under Delaware law. In addition, each director will continue to be subject to liability for breach of the director's duty of loyalty to us or our stockholders for acts or omissions not in good faith or involving intentional misconduct or knowing violations of the law, for actions leading to improper personal benefit to the director, and for payment of dividends or approval of stock repurchases or redemptions that are unlawful under Delaware law. The provision also does not affect a director's responsibilities under any other law, such as the federal securities laws or state or federal environmental laws.

Our bylaws provide for the indemnification of its directors to the fullest extent permitted by the Delaware General Corporation Law. Our bylaws further provide that our Board of Directors has discretion to indemnify our officers and other employees. We are required to advance, prior to the final disposition of any proceeding, promptly on request, all expenses incurred by any director or executive officer in connection with that proceeding on receipt of an undertaking by or on behalf of that director or executive officer to repay those amounts if it should be determined ultimately that he or she is not entitled to be indemnified under our bylaws or otherwise. We are not, however, required to advance any expenses in connection with any proceeding if a determination is reasonably and promptly made by our Board of Directors by a majority vote of a quorum of disinterested Board members that (i) the party seeking an advance acted in bad faith or deliberately breached his or her duty to us or to our stockholders and (ii) as a result of such actions by the party seeking an advance, it is more likely than not that it will ultimately be determined that such party is not entitled to indemnification pursuant to the applicable sections of our bylaws.

ADDITIONAL INFORMATION FURNISHED BY REFERENCE

The Company has included in its Schedule TO, the accompanying Offer to Amend and Exercise and this Supplemental Company Information the information required by Form 10, and first provided by the Company pursuant to its Current Report on Form 8-K/A filed with the SEC on May 11, 2012. The Company incorporates by reference into this Supplemental Company Information the documents listed below and filed by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act.

- our definitive proxy statement filed pursuant to Section 14 of the Exchange Act in connection with our 2012 Annual Meeting of Stockholders filed with the SEC on September 17, 2012;

- our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2012, filed with the SEC on November 14, 2012;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2012, filed with the SEC on August 14, 2012;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2012, filed with the SEC on May 15, 2012;
- our Current Reports on Form 8-K and Form 8-K/A filed with the Commission on May 11, 2012, July 9, 2012, August 9, 2012 as amended by Form 8-K/A filed August 10, 2012, October 10, 2012, and October 19, 2012; and
- the description of our common stock contained in our registration statement on Form 8/A filed with the SEC on March 13, 2012.

These documents, and all exhibits attached thereto, can be accessed electronically at no cost on the SEC's website at www.sec.gov and on the Company's website at www.organovo.com. In addition, the Company will provide each holder of an Original Warrant a copy of any or all of these documents and any other information that has been incorporated by reference into this Supplemental Company Information upon written or oral request at no cost to the requester. Requests should be directed to: Organovo Holdings, Inc., 6275 Nancy Ridge Drive, Suite 1100, San Diego, CA 92121, Attn: Corporate Secretary, telephone: (858) 550-9994.

EXHIBITS

(a) Exhibits:

The following exhibit index shows those exhibits incorporated herein by reference:

Exhibit No.	Description
2.1	Agreement and Plan of Merger and Reorganization, dated as of February 8, 2012, by and among Organovo Holdings, Inc. a Delaware corporation, Organovo Acquisition Corp., a Delaware corporation and Organovo, Inc., a Delaware corporation (incorporated by reference from Exhibit 2.1 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
2.2	Certificate of Merger as filed with the Delaware Secretary of State effective February 8, 2012 (incorporated by reference from Exhibit 2.2 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
2.3	Articles of Merger as filed with the Nevada Secretary of State effective December 28, 2011 (incorporated by reference from Exhibit 2.1 to the Company's Current Report on Form 8-K, as filed with the Securities and Exchange Commission (the "SEC") on February 3, 2012 (the "February 2012 Form 8-K")
2.4	Agreement and Plan of Merger, dated as of December 28, 2011, by and between Real Estate Restoration and Rental, Inc. and Organovo Holdings, Inc. (incorporated by reference from Exhibit 2.2 to the Company's Current Report on Form 8-K, as filed with the SEC on January 4, 2012)
2.5	Certificate of Merger as filed with the Delaware Secretary of State effective January 30, 2012 (incorporated by reference from Exhibit 2.3 to the February 3, 2012 Form 8-K)
2.6	Agreement and Plan of Merger, dated as of January 30, 2012, by and between Organovo Holdings, Inc. (Nevada) and Organovo Holdings, Inc. (Delaware) (incorporated by reference from Exhibit 2.2 to the February 3, 2012 Form 8-K)
2.7	Articles of Merger as filed with the Nevada Secretary of State effective January 30, 2012 (incorporated by reference from Exhibit 2.4 to the February 3, 2012 Form 8-K)
3.1(i)	Articles of Incorporation of Real Estate Restoration and Rental, Inc. (incorporated by reference from Exhibit 3.1 to the Company's registration statement (SEC File No. 333-169928) on Form S-1, as filed with the SEC on October 13, 2010)
3.1(ii)	Certificate of Incorporation, Certificate of Change of Registered Agent and/or Registered Office, Certificate of Correction, and Certificate of Amendment of Certificate of Incorporation, each of Organovo, Inc., as filed with the Secretary of State of the State of Delaware on April 19, 2007, January 30, 2009, July 29, 2010, and September 28, 2011 respectively (incorporated by reference from Exhibit 3.1(ii) to the Company's Amendment No. 1 to Current Report on Form 8-K/A, as filed with the SEC on March 30, 2012)
3.1(iii)	Certificate of Incorporation of Organovo Holdings, Inc. (Delaware) (incorporated by reference from Exhibit 3.1 to the February 3, 2012 Form 8-K)
3.2	Bylaws of Organovo Holdings, Inc. (Delaware) (incorporated by reference from Exhibit 3.2 to the February 3, 2012 Form 8-K)
4.1	Form of Bridge Warrant of Organovo, Inc. (incorporated by reference from Exhibit 4.1 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
4.2	Form of Bridge Promissory Note of Organovo, Inc. (incorporated by reference from Exhibit 4.2 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)

Exhibit No.	Description
4.3	Form of Warrant of Organovo, Inc. issued to former holders of Organovo, Inc. promissory notes (incorporated by reference from Exhibit 4.3 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
4.4	Form of Investor Warrant of Organovo Holdings, Inc. (incorporated by reference from Exhibit 4.4 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
4.5(i)	Form of Warrant of Organovo Holdings, Inc. ($1.00 exercise price) issued to Placement Agent (incorporated by reference from Exhibit 4.2(i) to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)
4.5(ii)	Form of Warrant of Organovo, Inc. ($1.00 exercise price) issued to Selling Agent (incorporated by reference from Exhibit 4.2(ii) to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)
4.5(iii)	Form of Warrant of Organovo Holdings, Inc. ($1.00 exercise price) issued to Placement Agent in exchange for Organovo, Inc. warrant issued to Selling Agent (incorporated by reference from Exhibit 4.2(iii) to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)
4.5	Form of Warrant of Organovo Holdings, Inc. issued to former holders of Organovo, Inc. promissory notes (incorporated by reference from Exhibit 4.5 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
4.6	Form of New Bridge Warrant (incorporated by reference from Exhibit 4.6 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
4.7	Form of Lock-Up Agreement (incorporated by reference from Exhibit 4.7 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.1	Form of Securities Purchase Agreement between Organovo, Inc and the Bridge Investors (incorporated by reference from Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.2	Escrow Agreement, by and among Organovo, Inc., the Selling Agent and Signature Bank (incorporated by reference from Exhibit 10.6 to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)
10.3	Selling Agent Agreement between Organovo, Inc. and the Selling Agent (incorporated by reference from Exhibit 10.3 to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)
10.4	Form of Subscription Agreement, by and between Organovo Holdings, Inc. and the investors in the offering (incorporated by reference from Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)
10.5	Form of Registration Rights Agreement, by and between Organovo Holdings, Inc. and the investors in the offering (incorporated by reference from Exhibit 10.2 to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)
10.6	Escrow Agreement, by and among Organovo, Inc., the Placement Agent and Signature Bank (incorporated by reference from Exhibit 10.51 to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)
10.6(i)	Extension to Escrow Agreement (incorporated by reference from Exhibit 10.5(iii) to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)
10.7(i)	Joinder by Organovo Holdings, Inc. to Placement Agency Agreement (incorporated by reference from Exhibit 10.4(ii) to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)

Exhibit No.	Description
10.7(ii)	Joinder by Organovo Holdings, Inc. to Escrow Agreement (incorporated by reference from Exhibit 10.5(ii) to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)
10.8	Placement Agent Agreement between Organovo, Inc. and the Placement Agent (incorporated by reference from Exhibit 10.4(i) to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)
10.8(i)	Extension to Placement Agent Agreement (incorporated by reference from Exhibit 10.4(iii) to the Company's Current Report on Form 8-K, as filed with the SEC on March 16, 2012)
10.9	Split-Off Agreement, by and among Organovo Holdings, Inc., Organovo Split Corp., Deborah Lovig and James Coker (incorporated by reference from Exhibit 10.9 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.10	General Release Agreement by and among Organovo Holdings, Inc., Organovo Split Corp., Deborah Lovig and James Coker (incorporated by reference from Exhibit 10.10 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.11	Form of Share Cancellation Agreement and Release (incorporated by reference from Exhibit 10.11 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.12	Offer Letter between Barry D. Michaels and Organovo, Inc. *** (incorporated by reference from Exhibit 10.12 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.13	Offer Letter between Sharon Collins Presnell and Organovo, Inc. *** (incorporated by reference from Exhibit 10.13 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.14	Organovo, Inc. 2008 Equity Incentive Plan *** (incorporated by reference from Exhibit 10.14 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.15	Organovo Holdings, Inc. 2012 Equity Incentive Plan*** (incorporated by reference from Exhibit 10.15 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.16	Form of Stock Option Award Agreement under the 2012 Equity Incentive Plan *** (incorporated by reference from Exhibit 10.16 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.17	Form of Indemnification Agreement *** (incorporated by reference from Exhibit 10.17 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.18	Memorandum of Understanding between Organovo, Inc. and Robert Baltera, Jr. *** (incorporated by reference from Exhibit 10.18 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.19	Scientific Advisory Board Consulting Agreement, dated as of March 17, 2008, by and between Organovo, Inc. and Glenn Prestwich, Ph.D. (incorporated by reference from Exhibit 10.19 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.20	Scientific Advisory Board Consulting Agreement, dated as of March 17, 2008, by and between Organovo, Inc. and David Mooney, Ph.D. (incorporated by reference from Exhibit 10.20 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.21	Scientific Advisory Board Consulting Agreement, dated as of April 14, 2008, by and between Organovo, Inc. and Gordana Vunjak-Novakovic (incorporated by reference from Exhibit 10.21 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)

Exhibit No.	Description
10.22	Scientific Advisory Board Consulting Agreement, dated as of June 30, 2008, by and between Organovo, Inc. and K. Craig Kent, M.D. (incorporated by reference from Exhibit 10.22 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
10.23	License Agreement dated as of March 24, 2009, by and between Organovo, Inc. and the Curators of the University of Missouri, **** (incorporated by reference from Exhibit 10.23 to the Company's Current Report on Form 8-K, as filed with the SEC on May 11, 2012)
10.24	License Agreement dated as of March 12, 2010 by and between the Company and the University of Missouri, **** (incorporated by reference from Exhibit 10.24 to the Company's Current Report on Form 8-K, as filed with the SEC on May 11, 2012)
10.25	License Agreement dated as of May 2, 2011, by and between the Company and Clemson University Research Foundation, **** (incorporated by reference from Exhibit 10.25 to the Company's Current Report on Form 8-K, as filed with the SEC on May 11, 2012)
10.26	3D Bio-Printer Development Program Agreement, dated as of March 3, 2011, by and between Invetech Pty Ltd ("Invetech") and Organovo Holdings, Inc. (incorporated by reference from Exhibit 10.25 to the Company's Current Report on Form 8-K/A, as filed with the SEC on March 30, 2012) ****
21.1	Subsidiaries of Organovo Holdings, Inc. (incorporated by reference from Exhibit 10.25 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)

December 4, 2012

ORGANOVO HOLDINGS, INC.

To the Holders of the Original Warrants

As you know, Organovo Holdings, Inc. (the "**Company**") is offering the holders of certain warrants to purchase common stock of the Company (defined below as the "**Original Warrants**") the opportunity to amend and exercise such Original Warrants, upon the terms set forth in the enclosed "Offer to Amend and Exercise Warrants to Purchase Common Stock of Organovo Holdings, Inc." dated as of December 4, 2012 (the "**Offer to Amend and Exercise**"). The warrants subject to the Offer to Amend and Exercise are those held by: (i) the investors who participated in the Company's bridge financing completed on November 2011 (the "**Bridge Warrants**"); (ii) the investors who participated the Company's private placement financings closed on February 8, 2012, February 29, 2012 and March 16, 2012 (the "**Investor Warrants**"); and (iii) outstanding warrants to purchase shares of the Company's common stock issued to investors in the Company's private placement transactions completed in 2011 (the "**Private Warrants**", and collectively with the Bridge Warrants and the Investor Warrants, the "**Original Warrants**"). All terms not defined in this letter shall have the meanings set forth in the Offer to Amend and Exercise.

Offering materials were previously provided to you on or about November 16, 2012. Since the mailing of those offering materials the Company has received comments to said offering materials from the Securities and Exchange Commission (the "**SEC**"). In response to the SEC's comments, we have amended the offering materials contained in our original mailing and enclosed new offering materials, comprised of: an Offer to Amend and Exercise together with the Election to Participate and Exercise Warrant, forms of Amended Warrants and Notice of Withdrawal (the "**Offering Materials**").

The changes to the original offering materials, as reflected in the newly enclosed Offering Materials are summarized as follows:

- The Company has supplemented the Offering Materials with information regarding the Company in order to allow holders of Original Warrants who are not "accredited investors," if any, to participate in the Offer to Amend and Exercise. Although you will no longer be required to be an accredited investor in order to participate in the Offer to Amend and Exercise, the Company will continue to require you to complete an accredited investor questionnaire in connection with the Offer to Amend and Exercise.
- The Company has revised the original offering materials to clarify that your existing warrants cannot be exercised at the revised exercise price prior to the Expiration Date of the Offer to Amend and Exercise. The Company has also clarified that the "lock-up" period described in the original offering materials will expire twenty (20) days after the Expiration Date of the Offer to Amend and Exercise.
- In response to SEC comments, the Company has also clarified certain procedural and timing mechanics associated with your rights of withdrawal in connection with the Offer to Amend and Exercise and the manner of payment and exchange with respect to the Original Warrants, the Amended Warrants and the exercise of the Amended Warrants for common stock of the Company and.

To participate in the Offer to Amend and Exercise and exercise an Amended Warrant and receive the number of shares of Company common stock issuable therefor, you must deliver to the Company, prior to the expiration of the Offer to Amend and Exercise, which is 5:00 p.m. (Pacific time) on December 17, 2012, as may be extended by the Company in its sole discretion (the "**Expiration Date**"): (i) a signed copy of the Election to Participate and Exercise Warrant, (ii) a signed copy of an Accredited Investor Questionnaire, (iii) the original copy of your Original Warrant (or an Affidavit of Lost Warrant) for cancellation, and (iv) cash in the amount equal to $0.80 per share multiplied by the number of shares of common stock you elect to purchase. The cash exercise price may be tendered in the form of a check payable to Organovo Holdings, Inc. or by wire transfer to the Company's account

as set forth in the Election to Participate and Exercise Warrant. These items must be properly delivered, before the Expiration Date to: Organovo Holdings, Inc., 6275 Nancy Ridge Drive, San Diego, CA 92121, Attn: Corporate Secretary, telephone number (858) 550-9994. If you properly tender (and do not validly withdraw) these materials on or prior to 5:00 p.m., Pacific Time on December 17, 2012, the Expiration Date of the Offer to Amend and Exercise (or such later date and time if we extend the Offer to Amend and Exercise), promptly following the Expiration Date, we intend to notify our depositary institution and our transfer agent of our acceptance of your payment of the exercise price and these materials and issue and deliver to you the number of shares of Company common stock issuable under the Amended Warrant.

If you change your mind and do not want to participate in the Offer to Amend and Exercise, you may submit a Notice of Withdrawal to us. However, to be effective, the Notice of Withdrawal must be properly completed and must be returned to us on or prior to 5:00 p.m., Pacific Time on December 17, 2012, the Expiration Date of the Offer to Amend and Exercise (or such later date and time if we extend the Offer to Amend and Exercise). However, if we have not accepted your tendered Original Warrants and other Acceptance and Exercise Documents by January 16, 2013, which is the fortieth business day from the commencement of the Offer to Amend and Exercise, you may change your mind and submit a Notice of Withdrawal to us after January 16, 2013. If you properly withdraw in a timely manner as set forth above, we will promptly: (i) cancel your signed copy of the Election to Participate and Exercise Warrant, (ii) return the original copy of your Original Warrant (which will remain unmodified and in full force and effect), or issue you a new Original Warrant if you submitted an Affidavit of Lost Warrant, and (iii) provide you with a check equal to the amount of cash you paid to exercise the Amended Warrant.

Thank you for your time in reviewing the Offering Materials.

Very truly yours,

/s/ Keith Murphy

Organovo Holdings, Inc.
Keith Murphy
Chief Executive Officer and President