

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

**FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

ORGANOVO HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

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

6275 Nancy Ridge Drive
San Diego, California 92121
(Address of Principal Executive Offices)(Zip Code)

Organovo Holdings, Inc. Inducement Award Stock Option Agreement
Organovo Holdings, Inc. Inducement Award Performance-Based Restricted Stock Unit Agreement
(Full titles of the plans)

Jennifer Bush, Esq.
General Counsel, Corporate Secretary and Compliance Officer
Organovo Holdings, Inc.
6275 Nancy Ridge Drive
San Diego, California 92121
(858) 550-9994

(Name, address, telephone number,
including area code, of agent for service)

Jeffrey C. Thacker, Esq.
Ryan J. Gunderson, Esq.
Gunderson Dettmer Stough Villeneuve
Franklin & Hachigian, LLP
3570 Carmel Mountain Rd., Suite 200
San Diego, CA 92130
Tel: (858) 436-8000

(Copy to)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering price (2)	Amount of registration fee
Common stock, par value \$0.001 per share				
Inducement Award Stock Option Agreement	2,088,212	\$2.66	\$5,554,644	\$644
Inducement Award Performance-Based Restricted Stock Unit Agreement	208,822	\$2.66	\$555,467	\$65

Total	2,297,034	\$2.66	\$6,110,111	\$709
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- (1) Represents the offer and sale of 2,297,034 shares of the Registrant's common stock pursuant to the terms of the Inducement Award Stock Option Agreement and the Inducement Award Performance-Based Restricted Stock Unit Agreement (collectively, the "Inducement Award Agreements"). In addition, pursuant to Rule 416(c) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall also cover any additional securities that may be necessary to adjust the number of shares reserved for issuance pursuant to the Inducement Award Agreements by reason of any stock split, stock dividend or similar adjustment effected without the Registrant's receipt of consideration that results in an increase in the number of the Registrant's outstanding shares of common stock.
- (2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) and (h) under the Securities Act. The proposed maximum offering price per share, proposed maximum aggregate offering price and the amount of the registration fee are based on the average of the high and low prices of Registrant's common stock on the Nasdaq Stock Market on April 20, 2017 of \$2.66.

This registration statement shall become effective upon filing in accordance with Rule 462 under the Securities Act.

INTRODUCTORY NOTES

Organovo Holdings, Inc. (the “Company” or the “Registrant”) has filed this Registration Statement to register under the Securities Act of 1933, as amended (the “Securities Act”) the offer and sale of 2,297,034 shares of the Company’s Common Stock, par value \$0.001 per share (“Common Stock”), pursuant to the terms of the Inducement Award Stock Option Agreement and Inducement Award Performance-Based Restricted Stock Unit Agreement (collectively, the “Inducement Award Agreements”) attached as exhibits to this registration statement.

On April 11, 2017, the Company announced that its Board of Directors had appointed Taylor J. Crouch to serve as its Chief Executive Officer and President, with a start date on April 24, 2017. Pursuant to an offer letter between the Company and Mr. Crouch, the Company agreed to issue Mr. Crouch a Stock Option for 2,088,212 shares of Common Stock and a Performance-Based Restricted Stock Unit Award representing the right to receive up to 208,822 shares of Common Stock on or after his start date. In accordance with the terms of the offer letter, the Compensation Committee of the Company’s Board of Directors approved the Stock Option and the Performance-Based Restricted Stock Unit Award on April 24, 2017, with the awards evidenced by the respective Inducement Award Agreements attached hereto.

The Stock Option and the Performance-Based Restricted Stock Unit Award were adopted outside the terms of the Company’s stockholder-approved equity plan as permitted by Nasdaq Listing Rule 5635(c)(4) as an inducement material to the acceptance of employment by its new Chief Executive Officer and President.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

As permitted by the rules of the Securities and Exchange Commission (the “Commission”), this registration statement omits the information specified in Part I of Form S-8. The documents containing the information specified in Part I will be delivered to the Company’s Chief Executive Officer and President as required by Rule 428(b) promulgated under the Securities Act. Such documents are not being filed with the Commission as part of this registration statement or as prospectuses or prospectus supplements pursuant to Rule 424 of the Securities Act. Such documents and the documents incorporated by reference in this registration statement pursuant to Item 3 of Part II hereof, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed with the Commission by the Registrant are incorporated by reference in this registration statement:

- (a) The Registrant’s latest annual report on Form 10-K filed pursuant to Sections 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), containing audited financial statements for the Registrant’s fiscal year ended March 31, 2016 as filed with the Commission on June 9, 2016;
- (b) The Registrant’s quarterly report on Form 10-Q for its fiscal quarter ended June 30, 2016 filed with the Commission on August 4, 2016;
- (c) The Registrant’s quarterly report on Form 10-Q for its fiscal quarter ended September 30, 2016 filed with the Commission on November 3, 2016;
- (d) The Registrant’s quarterly report on Form 10-Q for its fiscal quarter ended December 31, 2016 filed with the Commission on February 9, 2017;
- (e) The Registrant’s current reports on Form 8-K filed with the Commission on April 5, 2016, July 8, 2016, July 20, 2016, July 26, 2016, August 2, 2016, August 18, 2016, October 25, 2016 and April 11, 2017;
- (f) The Registrant’s definitive proxy statement on Schedule 14A filed with the Commission on July 8, 2016; and
- (g) The description of the Registrant’s common stock contained in the Registrant’s Registration Statement on Form 8-A as filed with the SEC on July 9, 2013 (File No. 001-35996) pursuant to Section 12(b) of the Exchange Act.

All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be part hereof from the date of filing of such reports and other documents, except as to any portion of any such report or other document furnished under current Items 2.02 or 7.01 of Form 8-K that is not deemed filed under such provisions.

For the purposes of this registration statement, any statement contained in a report or document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. 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 (i) by a majority vote of the directors who are not parties to such proceeding, even though less than a quorum, or (ii) by a committee of such directors designated by majority vote of such directors, even though less than a quorum, or (iii) if there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion, that facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

In addition, we have entered into indemnification agreements with each of our executive officers and directors. We also maintain an officers and directors liability insurance policy.

The foregoing may reduce the likelihood of derivative litigation against our directors and executive officers and may discourage or deter stockholders or management from suing directors or executive officers for breaches of their duty of care, even though such actions, if successful, might otherwise benefit the company and our stockholders.

We have been advised that in the opinion of the Commission indemnification for liabilities arising under the Securities Act is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities is asserted by one of our directors, officers, or controlling persons in connection with the securities being registered, we will, unless in the opinion of our legal counsel the matter has been settled by controlling precedent, submit the question of whether such indemnification is against public policy to a court of appropriate jurisdiction. We will then be governed by the court's decision.

Item 7. Exemption From Registration Claimed.

Not applicable.

Item 8. Exhibits.

The following is a list of exhibits filed as part of this registration statement, which are incorporated herein:

<u>Exhibit No.</u>	<u>Description</u>
4.1	Certificate of Incorporation (incorporated by reference from Exhibit 3.1 to Form 8-K filed on February 3, 2012)
4.2	Bylaws of Organovo Holdings, Inc. (Delaware) (incorporated by reference from Exhibit 3.2 to Form 8-K filed on February 3, 2012)
4.3	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)
4.4	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 19, 2012)
4.5	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 19, 2012)
5.1	Opinion of Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP
23.1	Consent of Independent Registered Public Accounting Firm
23.2	Consent of Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP (filed as a part of Exhibit 5.1)
24.1	Power of Attorney (contained on signature page)
99.1+	Organovo Holdings, Inc. Inducement Award Stock Option Agreement, dated April 24, 2017
99.2+	Organovo Holdings, Inc. Inducement Award Performance-Based Restricted Stock Unit Agreement, dated April 24, 2017

+ Designates management contracts and compensation plans.

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of the expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on this 24th day of April, 2017.

ORGANOVO HOLDINGS, INC.

By: /s/ Craig Kussman
Craig Kussman
Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Craig Kussman and Jennifer Bush, and each of them individually, as the undersigned's true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for the undersigned and in the undersigned's name, place, and stead, in any and all capacities, to sign any and all amendments to this Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming that all said attorneys-in-fact and agents, or any of them or their respective substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons in the capacities and on the date indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Taylor Crouch</u> Taylor Crouch	President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	April 24, 2017
<u>/s/ Craig Kussman</u> Craig Kussman	Chief Financial Officer <i>(Principal Financial and Accounting Officer)</i>	April 24, 2017
<u>/s/ Keith Murphy</u> Keith Murphy	Chairman of the Board of Directors	April 24, 2017
<u>/s/ Robert Baltera, Jr.</u> Robert Baltera, Jr.	Director	April 24, 2017
<u>/s/ James Glover</u> James Glover	Director	April 24, 2017
<u>/s/ Tamar Howson</u> Tamar Howson	Director	April 24, 2017
<u>/s/ Mark Kessel</u> Mark Kessel	Director	April 24, 2017
<u>/s/ Kirk Malloy</u> Kirk Malloy	Director	April 24, 2017
<u>/s/ Richard Maroun</u> Richard Maroun	Director	April 24, 2017

EXHIBIT INDEX

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+	Designates management contracts and compensation plans.



SILICON VALLEY
ANN ARBOR
BEIJING
BOSTON
LOS ANGELES
NEW YORK
SAN DIEGO
SAN FRANCISCO
SINGAPORE

April 24, 2017

Organovo Holdings, Inc.
6275 Nancy Ridge Drive
San Diego, California 92121

**Re: Registration Statement on Form S-8
Relating to 2,297,034 Shares of Common Stock**

Ladies and Gentlemen:

We have acted as counsel to Organovo Holdings, Inc., a Delaware corporation (the “*Company*”), in connection with the preparation and filing with the Securities and Exchange Commission of the Company’s Registration Statement on Form S-8 (the “*Registration Statement*”), under the Securities Act of 1933, as amended (the “*Securities Act*”), relating to the registration of up to (i) 2,088,212 shares of Common Stock, par value \$0.001 per share, (the “*Common Stock*”) of the Company issuable pursuant to the terms of an Inducement Award Stock Option Agreement (the “*Inducement Award Stock Option Agreement*”) and (ii) 208,822 shares of Common Stock issuable pursuant to the terms of an Inducement Award Performance-Based Restricted Stock Unit Agreement (the “*Inducement Award Performance-Based Restricted Stock Unit Agreement*”, and collectively with the Inducement Award Stock Option Agreement, the “*Inducement Award Agreements*”). The shares of Common Stock issuable pursuant to the Inducement Award Agreements are referred to herein as the “*Shares*”.

We have examined all instruments, documents and records which we deemed relevant and necessary for the basis of our opinion hereinafter expressed. In such examination, we have assumed the genuineness of all signatures and the authenticity of all documents submitted to us as originals and the conformity to the originals of all documents submitted to us as copies. We express no opinion concerning any law other than the corporation laws of the State of Delaware and the federal law of the United States. As to matters of Delaware corporation law, we have based our opinion solely upon our examination of such laws and the rules and regulations of the authorities administering such laws, all as reported in standard, unofficial compilations. We have not obtained opinions of counsel licensed to practice in jurisdictions other than the State of California.

Based on such examination, we are of the opinion that the (i) 2,088,212 Shares which may be issued upon exercise of the Inducement Award Stock Option Agreement and (ii) 208,822 Shares which may be issued in accordance with the terms of the Inducement Award Performance-Based Restricted Stock Unit Agreement, are duly authorized Shares, and, when issued against receipt of the consideration therefore in accordance with the provisions of the applicable Inducement Award Agreement will be validly issued, fully paid and nonassessable. We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and the use of our name wherever it appears in said Registration Statement.

Very truly yours,

/s/ Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP

GUNDERSON DETTMER STOUGH VILLENEUVE FRANKLIN & HACHIGIAN, LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated June 9, 2016, relating to the consolidated financial statements of Organovo Holdings, Inc. and Subsidiaries, appearing in the Annual Report on Form 10-K, for the year ended March 31, 2016.

/s/ Mayer Hoffman McCann P.C.

San Diego, California

April 24, 2017

ORGANOVO HOLDINGS, INC.

INCENTIVE AWARD STOCK OPTION AGREEMENT

In accordance with the terms of the offer letter, dated April 11, 2017, by and between Organovo Holdings, Inc. (the “*Company*”) and Taylor J. Crouch (“*Participant*”), the Compensation Committee of the Board of Directors has granted the Participant a Stock Option (the “*Option*”) represented by this Incentive Award Stock Option Agreement (the “*Award Agreement*”) as of the Date of Grant below.

The Option was granted outside of the Company’s 2012 Equity Incentive Plan (the “*Plan*”) as an “inducement grant” within the meaning of NASDAQ Listing Rule 5635(c)(4). While the Option was granted outside the Plan, the Option will be governed in all respects as if issued under the Plan, as currently in effect and as may be amended hereafter from time to time. In addition, unless otherwise defined herein, the defined terms used in this Award Agreement shall have the same meanings as the defined terms under the Plan, except as provided in a the Superseding Agreement (as defined below).

Participant has been granted an Option to purchase shares of the Company’s Common Stock, subject to the terms and conditions of this Award Agreement, as follows:

<u>Date of Grant:</u>	April 24, 2017
<u>Vesting Commencement Date:</u>	April 24, 2017
<u>Exercise Price per Share:</u>	\$2.73
<u>Total Number of Shares Granted:</u>	2,088,212 shares of Common Stock (the “ <i>Option Shares</i> ”)
<u>Type of Option:</u>	Nonstatutory Stock Option
<u>Term/Expiration Date:</u>	April 23, 2027

Vesting and Exercise Schedule: Subject to any acceleration provisions set forth in this Award Agreement and/or the Company’s Severance and Change in Control Plan (the “*Severance Plan*”), this Option may be exercised and will vest in accordance with the following schedule: 25% of the Option Shares will vest and become exercisable 12 months from the Vesting Commencement Date, and the remaining Option Shares will vest and become exercisable on a quarterly basis over the next 12 quarters (for a total vesting period of 48 months from the Vesting Commencement Date), subject to Participant’s continuous service as a Service Provider through the applicable vesting period.

Superseding Agreement: The terms of the Severance Plan and any employment agreement or severance plan adopted by the Board after the Date of Grant in which Participant agrees to participate in shall be deemed a Superseding Agreement, and the terms set forth in such

Superseding Agreement shall supersede and replace the defined terms set forth in this Award Agreement. Notwithstanding the foregoing, a Superseding Agreement cannot impair the rights of any Participant under an outstanding Award Agreement, unless mutually agreed otherwise between the Participant and the Administrator, which agreement must be in writing and signed by the Participant and the Company.

Termination Period: This Option will be exercisable for three (3) months after Participant ceases to be a Service Provider, unless such termination is due to Participant's death or Disability, in which case this Option will be exercisable for twelve (12) months after Participant ceases to be a Service Provider. If such termination is without Cause or for Good Reason (as defined in the Severance Plan) within six months before a Change of Control, or within the twelve months following a Change in Control, this Option shall be exercisable for a period of twelve (12) months following the effective date of the termination. Notwithstanding the foregoing, in no event may this Option be exercised after the Term/Expiration Date as provided above and will terminate earlier consistent with the provisions in Section 15 of the Plan. The terms "Cause", "Good Reason", "Change in Control," and "Disability" shall have the meanings given to such terms in the Severance Plan.

By Participant's signature and the signature of the Company's representative below, Participant and the Company agree that this Option is governed by the terms and conditions this Award Agreement, including the Terms and Conditions of Incentive Award Stock Option Grant, attached hereto as Exhibit A, the Plan and by each Superseding Agreement, all of which are made a part of this document. Participant has reviewed this Award Agreement, the Plan and the Severance Plan in their entirety, and has had an opportunity to obtain the advice of counsel prior to executing this Award Agreement and fully understands all provisions of the Award Agreement, the Plan and the Severance Plan. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions relating to the Award Agreement, the Plan, the Severance Plan or any Superseding Agreement. Participant further agrees to notify the Company upon any change in the residence address indicated below.

PARTICIPANT

/s/ Taylor J. Crouch
Taylor J. Crouch

ORGANOVO HOLDINGS, INC.

/s/ Craig Kussman
Craig Kussman, Chief Financial Officer

EXHIBIT A

ORGANOVO HOLDINGS, INC.

**TERMS AND CONDITIONS OF
INCENTIVE AWARD STOCK OPTION GRANT**

1. Grant of Option. The Company hereby grants to the Participant (the "**Participant**") named in the Incentive Award Stock Option Agreement ("**Award Agreement**") an option (the "**Option**") to purchase the number of Option Shares, as set forth in the Award Agreement, at the exercise price per share set forth in the Award Agreement (the "**Exercise Price**"). The Option was granted outside of the Company's 2012 Equity Incentive Plan (the "**Plan**") as an "inducement grant" within the meaning of NASDAQ Listing Rule 5635(c)(4). While the Option was granted outside the Plan, the Option will be governed in all respects as if issued under the Plan, as currently in effect and as may be amended hereafter from time to time. In addition, the Option will be subject to all of the terms and conditions in this Award Agreement, the Company's Severance and Change in Control Plan (the "**Severance Plan**"), which is incorporated herein by reference, and any other Superseding Agreement. Subject to the Severance Plan and any other Superseding Agreement, unless otherwise defined herein, the defined terms used in this Award Agreement shall have the same meanings as the defined terms under the Plan.

2. Vesting Schedule. Except as provided in the Severance Plan or a Superseding Agreement, the Option awarded by this Award Agreement will vest in accordance with the vesting provisions set forth in this Award Agreement.

3. Administrator. All questions of interpretation concerning this Award Agreement, the Plan, the Severance Plan or any other Superseding Agreement shall be determined by the Compensation Committee of the Board of Directors (the "**Administrator**"). All such determinations by the Administrator shall be final, binding and conclusive upon all persons having an interest in the Option, unless fraudulent or made in bad faith. Any and all actions, decisions and determinations taken or made by the Administrator in the exercise of its discretion pursuant to the Award Agreement, the Plan, the Severance Plan or a Superseding Agreement shall be final, binding and conclusive upon all persons having an interest in the Option. No member of the Administrator will be personally liable for any action, determination or interpretation made in good faith with respect to this Award Agreement, the Plan, the Severance Plan or a Superseding Agreement.

4. Exercise of Option.

(a) Right to Exercise. This Option may be exercised only within the term set out in the Award Agreement, and may be exercised during such term only in accordance with the terms of this Award Agreement. The term for exercising this option may be modified by the Administrator in its discretion.

(b) Method of Exercise. This Option is exercisable by delivery of an exercise notice, in the form attached as Exhibit B (the "**Exercise Notice**") or in a manner and pursuant to such procedures as the Administrator may determine, which will state the election to exercise the

Option, the number of Option Shares in respect of which the Option is being exercised (the "**Exercised Shares**"), and such other representations and agreements as may be required by the Company. The Exercise Notice will be completed by Participant and delivered to the Company. The Exercise Notice will be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares together with any applicable tax withholding. This Option will be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by such aggregate Exercise Price.

5. Method of Payment. Payment of the aggregate Exercise Price will be by any of the following, or a combination thereof, at the election of Participant:

- (a) by wire transfer of immediately available funds;
- (b) check;
- (c) cashless exercise, if authorized at the time of exercise by the Administrator; or

(d) surrender of other shares of the Company's common stock which have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares, provided that accepting such shares, in the sole discretion of the Administrator, will not result in any adverse accounting consequences to the Company.

6. Tax Obligations.

(a) Withholding Taxes. Notwithstanding any contrary provision of this Award Agreement, no certificate representing the Option Shares will be issued to Participant, unless and until satisfactory arrangements (as determined by the Administrator) will have been made by Participant with respect to the payment of income, employment and other taxes which the Company determines must be withheld with respect to such Option Shares. To the extent determined appropriate by the Company in its discretion, it will have the right (but not the obligation) to satisfy any tax withholding obligations by reducing the number of Option Shares otherwise deliverable to Participant. If Participant fails to make satisfactory arrangements for the payment of any required tax withholding obligations hereunder at the time of the Option exercise, Participant acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver Option Shares if such withholding amounts are not delivered at the time of exercise.

(b) Code Section 409A. Under Code Section 409A, an option that vests after December 31, 2004 (or that vested on or prior to such date but which was materially modified after October 3, 2004) that was granted with a per Share exercise price that is determined by the Internal Revenue Service (the "**IRS**") to be less than the Fair Market Value of a Share on the date of grant (a "**Discount Option**") may be considered "deferred compensation." A Discount Option may result in (i) income recognition by Participant prior to the exercise of the option, (ii) an additional twenty percent (20%) federal income tax, and (iii) potential penalty and interest charges. The Discount Option may also result in additional state income, penalty and interest charges to the Participant. Participant acknowledges that the Company cannot and has not guaranteed that the IRS will agree that the per Share exercise price of this Option equals or exceeds the Fair Market Value of a Share on the Date of Grant in a later examination. Participant

agrees that if the IRS determines that the Option was granted with a per Share exercise price that was less than the Fair Market Value of a Share on the date of grant, Participant will be solely responsible for Participant's costs related to such a determination.

(c) Participant hereby acknowledges that Participant has consulted with any tax consultants Participant deems necessary or advisable in connection with the receipt of the Option, the vesting of the Option Shares, the purchase and the disposition of the Option Shares, and that Participant is not relying on the Company for any tax advice. Participant understands that Participant is responsible for reporting and paying any individual federal and state taxes resulting from Participant's receipt of the Option, the vesting of the Option Shares, the purchase of the Option Shares and the disposition of the Option Shares, including any alternative minimum tax (AMT).

7. Adjustments for Changes in Capital Structure. In accordance with Section 15 of the Plan and subject to any required action by the stockholders of the Company and the requirements of Section 409A to the extent applicable, in the event of any change in the Company's Common Stock effected without receipt of consideration by the Company, whether through merger, consolidation, reorganization, reincorporation, recapitalization, reclassification, stock dividend, stock split, reverse stock split, split-up, split-off, spin-off, combination of shares, exchange of shares, or similar change in the capital structure of the Company, or in the event of payment of a dividend or distribution to the stockholders of the Company in a form other than shares of the Company's Common Stock (other than regular, periodic cash dividends paid on the Common Stock pursuant to the Company's dividend policy) that has a material effect on the Fair Market Value of shares of Common Stock, appropriate and proportionate adjustments shall be made (a) to the number of Option Shares subject to the Option and/or the number and kind of shares of Common Stock or other property to be issued upon exercise of the Option and (b) to the Exercise Price, in order to prevent dilution or enlargement of the Participant's rights under the Option. For purposes of the foregoing, conversion of any convertible securities of the Company shall not be treated as "effected without receipt of consideration by the Company." Any and all new, substituted or additional securities or other property (other than regular, periodic cash dividends paid on Common Stock pursuant to the Company's dividend policy) to which the Participant is entitled by reason of ownership of Option Shares acquired pursuant to the Option will be immediately subject to the provisions of this Award Agreement on the same basis as all Option Shares originally purchasable hereunder. Any fractional share of Common Stock resulting from an adjustment pursuant to this Section shall be rounded down to the nearest whole number. Such adjustments shall be determined by the Administrator, and its determination shall be final, binding and conclusive.

8. Effect of Change in Control. In accordance with Section 15 of the Plan and subject in all cases to any accelerated vesting provisions provided in this Award Agreement, the Plan, the Severance Plan and any Superseding Agreement, in the event of a Change in Control (as defined in the Plan), except to the extent that the Administrator determines to cash out the Option, the surviving, continuing, successor, or purchasing entity or parent thereof, as the case may be (the "**Acquiror**"), may, without the consent of the Participant, assume or continue in full force and effect the Company's rights and obligations under the Option or substitute for all or any portion of the Option Shares substantially equivalent rights with respect to the Acquiror's stock. For purposes of this Section, the Option shall be deemed assumed if, following the

Change in Control, the Option confers the right to receive, subject to the terms and conditions this Award Agreement, the consideration (whether stock, cash, other securities or property or a combination thereof) to which a holder of a share of Common Stock on the effective date of the Change in Control was entitled (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); provided, however, that if such consideration is not solely common stock of the Acquiror, the Administrator may, with the consent of the Acquiror, provide for the consideration to be received upon exercise of the Option to consist solely of common stock of the Acquiror equal in Fair Market Value to the per share consideration received by holders of Common Stock pursuant to the Change in Control. In accordance with Section 15 of the Plan, the Option shall vest in full and be exercisable on the date of the Change in Control to the extent that the Option is not assumed, continued or substituted by the Acquiror in connection with the Change in Control.

9. Rights as a Stockholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Option Shares deliverable hereunder unless and until certificates representing such Option Shares will have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered to Participant. After such issuance, recordation and delivery, Participant will have all the rights of a stockholder of the Company with respect to voting such Option Shares and receipt of dividends and distributions on such Option Shares.

10. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF OPTION SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THE OPTION OR ACQUIRING OPTION SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AWARD AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND WILL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

11. Address for Notices. Any notice to be given to the Company under the terms of this Award Agreement will be addressed to the Company, in care of its Chief Financial Officer at Organovo Holdings, Inc., 6275 Nancy Ridge Dr., San Diego, CA 92121, or at such other address as the Company may hereafter designate in writing.

12. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Participant only by Participant.

13. Binding Agreement. Subject to the limitation on the transferability of this grant contained herein, this Award Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

14. Additional Conditions to Issuance of Stock. If at any time the Company will determine, in its discretion, that the listing, registration or qualification of the Option Shares upon any securities exchange or under any state or federal law, or the consent or approval of any governmental regulatory authority is necessary or desirable as a condition to the issuance of the Option Shares to Participant (or his or her estate), such issuance will not occur unless and until such listing, registration, qualification, consent or approval will have been effected or obtained free of any conditions not acceptable to the Company. The Company will make all reasonable efforts to meet the requirements of any such state or federal law or securities exchange and to obtain any such consent or approval of any such governmental authority. Assuming such compliance, for income tax purposes the Exercised Shares will be considered transferred to Participant on the date the Option is exercised with respect to such Exercised Shares.

15. Electronic Delivery. The Company may, in its sole discretion, decide to deliver any documents related to the Option or the Award Agreement by electronic means or request Participant's consent to receive any such materials by electronic means.

16. Captions. Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Award Agreement.

17. Agreement Severable. In the event that any provision in this Award Agreement will be held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Award Agreement.

18. Modifications to the Agreement. This Award Agreement, together with the Plan, the Severance Plan and any Subsequent Agreement, constitutes the entire understanding of the parties on the subjects covered. Participant expressly warrants that he or she is not accepting this Award Agreement in reliance on any promises, representations, or inducements other than those contained herein. Modifications to this Award Agreement can be made only in an express written contract executed by a duly authorized officer of the Company. Notwithstanding anything to the contrary in this Award Agreement, the Company reserves the right to revise this Award Agreement as it deems necessary or advisable, in its sole discretion and without the consent of Participant, to comply with Code Section 409A or to otherwise avoid imposition of any additional tax or income recognition under Code Section 409A in connection to this Option.

19. Governing Law. This Award Agreement will be governed by the laws of the State of Delaware, without giving effect to the conflict of law principles thereof. For purposes of litigating any dispute that arises under this Option or this Award Agreement, the parties hereby submit to and consent to the jurisdiction of the State of Delaware, and agree that such litigation will be conducted in the state courts of the State of Delaware, or the federal courts for the United States for the District of Delaware, and no other courts, where this Option is made and/or to be performed.

20. Clawback Policy. Notwithstanding anything to the contrary in the Award Agreement, all Option Shares issued or issuable under this Option shall be subject to any clawback policy adopted by the Company from time to time (including, but not limited to, any policy adopted in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act or other Applicable Laws), regardless of whether the policy is adopted after the Date of Grant, after the vesting of the Option Shares vest, or after the exercise of the Award Agreement.

EXHIBIT B

ORGANOVO HOLDINGS, INC.

INCENTIVE AWARD STOCK OPTION AGREEMENT

EXERCISE NOTICE

Organovo Holdings, Inc.
6275 Nancy Ridge Dr.
San Diego, CA 92121

Attention: Chief Financial Officer

1. **Exercise of Option.** Effective as of today, _____, _____, the undersigned ("***Purchaser***") hereby elects to purchase _____ shares (the "***Shares***") of the Common Stock of Organovo Holdings, Inc. (the "***Company***") under and pursuant to the Incentive Award Stock Option Agreement, dated April 24, 2017 (the "***Award Agreement***"). The purchase price for the Shares will be \$ _____, as required by the Award Agreement.

2. **Delivery of Payment.** Purchaser herewith delivers to the Company the full purchase price of the Shares and any required tax withholding to be paid in connection with the exercise of the Option.

3. **Representations of Purchaser.** Purchaser acknowledges that Purchaser has received, read and understood the Award Agreement and agrees to abide by and be bound by their terms and conditions.

4. **Rights as Stockholder.** Until the issuance (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company) of the Shares, no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to the Option, notwithstanding the exercise of the Option. The Shares so acquired will be issued to Purchaser as soon as practicable after exercise of the Option. No adjustment will be made for a dividend or other right for which the record date is prior to the date of issuance, except as provided by the provisions in Section 15 of the Plan (which Section is incorporated herein by reference).

5. **Tax Consultation.** Purchaser hereby acknowledges that Purchaser has consulted with any tax consultants Purchaser deems necessary or advisable in connection with the receipt of the Option, the vesting of the Option Shares, the purchase and the disposition of the Shares, and that Purchaser is not relying on the Company for any tax advice. Purchaser understands that Purchaser is responsible for reporting and paying any personnel federal and state taxes resulting from Purchaser's receipt of the Option, the vesting of the Shares, the purchase of the Shares and the disposition of the Shares, including any alternative minimum tax (AMT).

6. **Entire Agreement; Governing Law.** The Award Agreement, the Severance Plan and any applicable definitions from the 2012 Equity Incentive Plan (the "***Plan***") are incorporated herein by reference. This Exercise Notice, the Award Agreement and the Severance Plan

constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Purchaser with respect to the subject matter hereof, and may not be modified adversely to the Purchaser's interest except by means of a writing signed by the Company and Purchaser. This agreement is governed by the internal substantive laws, but not the choice of law rules, of the State of Delaware.

Submitted by

PURCHASER

Signature

Taylor J. Crouch

Accepted by

ORGANOVO HOLDINGS, INC.

By

Title

ORGANOVO HOLDINGS, INC.

INCENTIVE AWARD PERFORMANCE-BASED
RESTRICTED STOCK UNIT AGREEMENT

In accordance with the terms of the offer letter, dated April 11, 2017 (the “*Offer Letter*”), by and between Organovo Holdings, Inc. (the “*Company*”) and Taylor J. Crouch (“*Participant*”), the Compensation Committee of the Board of Directors has granted the Participant a Performance-Based Restricted Stock Unit Award (the “*PBRSU*”) represented by this Incentive Award Performance-Based Restricted Stock Unit Agreement (the “*Award Agreement*”) as of the Date of Grant below.

The PBRSU was granted outside of the Company’s 2012 Equity Incentive Plan (the “*Plan*”) as an “inducement grant” within the meaning of NASDAQ Listing Rule 5635(c)(4). While the PBRSU was granted outside the Plan, the Option will be governed in all respects as if issued under the Plan, as currently in effect and as may be amended hereafter from time to time. In addition, unless otherwise defined herein, the defined terms used in this Award Agreement shall have the same meanings as the defined terms under the Plan, except as provided in a the Superseding Agreement (as defined below).

Participant has been granted a PBRSU for shares of the Company’s Common Stock, subject to the terms and conditions of this Award Agreement, as follows:

Date of Grant: April 24, 2017
Total Number of Units: 208,822 shares of Common Stock (the “*Units*”).
Term: April 23, 2021

Settlement Date: Except as otherwise provided by this Award Agreement or the Plan, the date on which a Unit becomes a vested Unit. Notwithstanding the foregoing and as provided for in the Award Agreement, if the vesting of the Units would otherwise occur on a date that is closed for trading under the Company’s Insider Trading Policy, the vesting and settlement of the Units shall be automatically deemed to occur on the next trading day on which the sale of shares of common stock by the Participant in the open market would be permitted under the Company’s Insider Trading Policy.

Vesting Conditions: Except as otherwise specified below, the Units shall vest based upon the Company’s achievement of performance metrics during the Term to be established and certified by the Compensation Committee of the Board of Directors in accordance with the terms of the Offer Letter, subject to Participant’s continuous service as a Service Provider through the date set by the Administrator (as defined below) for the applicable vesting condition.

Termination Before a Change of Control: If the Participant's employment with the Company is terminated by the Company for reasons other than Cause, death or Disability or by the Participant for Good Reason more than six months before a Change of Control, then this Award shall vest as determined by the Administrator. The terms "Cause", "Good Reason", "Disability" and "Change of Control" in this section shall have the meanings given to such terms in the Company's Severance and Change in Control Plan (the "**Severance Plan**").

Termination in Connection with a Change of Control: If the Participant's employment with the Company is terminated by the Company for reasons other than Cause, death or Disability or by the Participant for Good Reason (a) within six months before a Change of Control or (b) within 12 months after a Change of Control, then this Award shall vest in accordance with the applicable provisions and conditions of the Severance Plan or as otherwise determined by the Administrator. The terms "Cause", "Good Reason", "Disability" and "Change of Control" in this section shall have the meanings given to such terms in the Severance Plan.

Superseding Agreement: The terms of the Severance Plan and any employment agreement or severance plan adopted by the Board after the Date of Grant in which Participant agrees to participate in shall be deemed a Superseding Agreement, and the terms set forth in such Superseding Agreement shall supersede and replace the defined terms set forth in this Award Agreement. Notwithstanding the foregoing, a Superseding Agreement cannot impair the rights of any Participant under an outstanding Award Agreement, unless mutually agreed otherwise between the Participant and the Administrator, which agreement must be in writing and signed by the Participant and the Company.

By Participant's signature and the signature of the Company's representative below, Participant and the Company agree that this PBRSU governed by the terms and conditions this Award Agreement, including the Terms and Conditions of Incentive Award Performance-Based Restricted Stock Unit Agreement, attached hereto as Exhibit A, the Plan, and by each Superseding Agreement, all of which are made a part of this document. Participant has reviewed this Award Agreement, the Plan and the Severance Plan in their entirety, and has had an opportunity to obtain the advice of counsel prior to executing this Award Agreement and fully understands all provisions of the Award Agreement and the Severance Plan.

Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions relating to the Award Agreement, the Plan or the Severance Plan. Participant further agrees to notify the Company upon any change in the residence address indicated below.

PARTICIPANT

/s/ Taylor J. Crouch

Taylor J. Crouch

ORGANOVO HOLDINGS, INC.

/s/ Craig Kussman

Craig Kussman, Chief Financial Officer

EXHIBIT A

ORGANOVO HOLDINGS, INC.

**TERMS AND CONDITIONS OF
INCENTIVE AWARD PERFORMANCE-BASED
RESTRICTED STOCK UNIT AGREEMENT**

1. Grant of PBRSU. The Company hereby grants to the Participant (the "*Participant*") named in the Incentive Award Performance-Based Restricted Stock Unit Agreement (the "*Award Agreement*") a Performance-Based Restricted Stock Unit Award (the "*PBRSU*") for that number of Units set forth in the Award Agreement. Each Unit represents one (1) share of the Company's common stock.

The PBRSU was granted outside of the Company's 2012 Equity Incentive Plan (the "*Plan*") as an "inducement grant" within the meaning of NASDAQ Listing Rule 5635(c)(4). While the PBRSU was granted outside the Plan, the PBRSU will be governed in all respects as if issued under the Plan, as currently in effect and as may be amended hereafter from time to time. In addition, the PBRSU will be subject to all of the terms and conditions in this Award Agreement, the Company's Severance and Change in Control Plan (the "*Severance Plan*"), which is incorporated herein by reference, and any other Superseding Agreement. Subject to the Severance Plan and any other Superseding Agreement, unless otherwise defined herein, the defined terms used in this Award Agreement shall have the same meanings as the defined terms under the Plan.

2. Vesting and Settlement. The Units subject to this Award Agreement will vest and settle in accordance with the vesting and settlement provisions set forth in this Award Agreement, except as modified by the Severance Plan, the Administrator, or a Superseding Agreement.

3. Administration. All questions of interpretation concerning this Award Agreement, the Plan, the Severance Plan and any Superseding Agreement shall be determined by the Compensation Committee of the Board of Directors (the "*Administrator*"). All such determinations by the Administrator shall be final, binding and conclusive upon all persons having an interest in the PBRSU, unless fraudulent or made in bad faith. Any and all actions, decisions and determinations taken or made by the Administrator in the exercise of its discretion pursuant to the Award Agreement, the Plan the Severance Plan or a Superseding Agreement shall be final, binding and conclusive upon all persons having an interest in the PBRSU. No member of the Administrator will be personally liable for any action, determination or interpretation made in good faith with respect to this Award Agreement, the Plan, the Severance Plan or a Superseding Agreement.

4. Tax Obligations.

(a) Withholding Taxes. Notwithstanding any contrary provision of this Award Agreement, no certificate representing the Units will be issued to Participant, unless and until satisfactory arrangements (as determined by the Administrator) will have been made by Participant with respect to the payment of income, employment and other taxes which the Company determines must be withheld with respect to the vesting and/or settlement of the Units. To the extent determined appropriate by the Company in its discretion, it will have the right (but

not the obligation) to satisfy any tax withholding obligations by reducing the number of Units otherwise deliverable to Participant. If Participant fails to make satisfactory arrangements for the payment of any required tax withholding obligations hereunder at the time of the vesting and/or settlement of any Units, Participant acknowledges and agrees that the Company may refuse to deliver Units if such withholding amounts are not delivered at the applicable time of vesting or settlement.

(b) Code Section 409A. It is the intent that the vesting or the settlement of the Units as set forth in the Award Agreement shall qualify for exemption from the requirements of Code Section 409A, and any ambiguities herein shall be interpreted to so comply. The Company reserves the right, to the extent the Company deems necessary or advisable in its sole discretion, to unilaterally amend or modify the Award Agreement as may be necessary to ensure that all vesting or settlement provided for under the Award Agreement are made in a manner that qualifies for exemption from Code Section 409A; provided, however, that the Company makes no representation that the vesting or settlement of the Units provided for under the Award Agreement shall be exempt from Code Section 409A and makes no undertaking to preclude Code Section 409A from applying to the vesting or settlement of the Units provided for under the Award Agreement.

(c) Participant hereby acknowledges that Participant has consulted with any tax consultants Participant deems necessary or advisable in connection with the receipt of the PBRSU, the vesting and/or settlement of the Units, the disposition of the Units, and that Participant is not relying on the Company for any tax advice. Participant understands that Participant is responsible for reporting and paying any individual federal and state taxes resulting from Participant's receipt of the PBRSU, the vesting and settlement of the Units, the disposition of the Units, including any alternative minimum tax (AMT).

7. Adjustments for Changes in Capital Structure. In accordance with Section 15 of the Plan and subject to any required action by the stockholders of the Company and the requirements of Section 409A to the extent applicable, in the event of any change in the Company's Common Stock effected without receipt of consideration by the Company, whether through merger, consolidation, reorganization, reincorporation, recapitalization, reclassification, stock dividend, stock split, reverse stock split, split-up, split-off, spin-off, combination of shares, exchange of shares, or similar change in the capital structure of the Company, or in the event of payment of a dividend or distribution to the stockholders of the Company in a form other than shares of the Company's Common Stock (other than regular, periodic cash dividends paid on the Common Stock pursuant to the Company's dividend policy) that has a material effect on the Fair Market Value of shares of Common Stock, appropriate and proportionate adjustments shall be made in the number of Units subject to the PBRSU and/or the number and kind of shares of Common Stock or other property to be issued upon vesting and settlement of the PBRSU, in order to prevent dilution or enlargement of the Participant's rights under the PBRSU. For purposes of the foregoing, conversion of any convertible securities of the Company shall not be treated as "effected without receipt of consideration by the Company." Any and all new, substituted or additional securities or other property (other than regular, periodic cash dividends paid on Common Stock pursuant to the Company's dividend policy) to which the Participant is entitled by reason of ownership of Units acquired pursuant to the PBRSU will be immediately subject to the provisions of this Award Agreement on the same basis as all Units originally

purchasable hereunder. Any fractional share of Common Stock resulting from an adjustment pursuant to this Section shall be rounded down to the nearest whole number. Such adjustments shall be determined by the Administrator, and its determination shall be final, binding and conclusive.

8. Effect of Change in Control. In accordance with Section 15 of the Plan and subject in all cases to any accelerated vesting provisions provided in this Award Agreement, the Plan, the Severance Plan and any Superseding Agreement, in the event of a Change in Control (as defined in the Plan), except to the extent that the Administrator determines to cash out the PBRSU, the surviving, continuing, successor, or purchasing entity or parent thereof, as the case may be (the "Acquiror"), may, without the consent of the Participant, assume or continue in full force and effect the Company's rights and obligations under the PBRSU or substitute for all or any portion of the Units substantially equivalent rights with respect to the Acquiror's stock. For purposes of this Section, the PBRSU shall be deemed assumed if, following the Change in Control, the PBRSU confers the right to receive, subject to the terms and conditions this Award Agreement, the consideration (whether stock, cash, other securities or property or a combination thereof) to which a holder of a share of Common Stock on the effective date of the Change in Control was entitled (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); provided, however, that if such consideration is not solely common stock of the Acquiror, the Administrator may, with the consent of the Acquiror, provide for the consideration to be received upon exercise of the PBRSU to consist solely of common stock of the Acquiror equal in Fair Market Value to the per share consideration received by holders of Common Stock pursuant to the Change in Control. In accordance with Section 15 of the Plan, the PBRSU shall vest in full and will settle on the date of the Change in Control to the extent that the PBRSU is not assumed, continued or substituted by the Acquiror in connection with the Change in Control.

9. Rights as a Stockholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Units deliverable hereunder unless and until certificates representing such Units will have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered to Participant. After such issuance, recordation and delivery, Participant will have all the rights of a stockholder of the Company with respect to voting such Units and receipt of dividends and distributions on such Units.

10. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF UNITS PURSUANT TO THE VESTING SCHEDULE HEREOF IS SUBJECT TO ACHIEVEMENT OF THE PERFORMANCE MILESTONES, AND PARTICIPANT'S CONTINUED STATUS AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THE PBRSU OR ACQUIRING UNITS HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AWARD AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND WILL NOT INTERFERE IN ANY WAY WITH

PARTICIPANT'S RIGHT OR THE RIGHT OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

11. Address for Notices. Any notice to be given to the Company under the terms of this Award Agreement will be addressed to the Company, in care of its Chief Financial Officer at Organovo Holdings, Inc., 6275 Nancy Ridge Dr., San Diego, CA 92121, or at such other address as the Company may hereafter designate in writing.

12. Non-Transferability of PBRSU. This PBRSU may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be held during the lifetime of Participant only by Participant.

13. Binding Agreement. Subject to the limitation on the transferability of this grant contained herein, this Award Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

14. Additional Conditions to Issuance of Stock. If at any time the Company will determine, in its discretion, that the listing, registration or qualification of the Units upon any securities exchange or under any state or federal law, or the consent or approval of any governmental regulatory authority is necessary or desirable as a condition to the issuance of the Units to Participant (or his or her estate), such issuance will not occur unless and until such listing, registration, qualification, consent or approval will have been effected or obtained free of any conditions not acceptable to the Company. The Company will make all reasonable efforts to meet the requirements of any such state or federal law or securities exchange and to obtain any such consent or approval of any such governmental authority.

15. Electronic Delivery. The Company may, in its sole discretion, decide to deliver any documents related to the PBRSU or the Award Agreement by electronic means or request Participant's consent to receive any such materials by electronic means.

16. Captions. Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Award Agreement.

17. Agreement Severable. In the event that any provision in this Award Agreement will be held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Award Agreement.

18. Modifications to the Agreement. This Award Agreement, together with the Plan, the Severance Plan and any Subsequent Agreement, constitutes the entire understanding of the parties on the subjects covered. Participant expressly warrants that he or she is not accepting this Award Agreement in reliance on any promises, representations, or inducements other than those contained herein. Modifications to this Award Agreement can be made only in an express written contract executed by a duly authorized officer of the Company. Notwithstanding anything to the contrary in this Award Agreement, the Company reserves the right to revise this Award Agreement as it deems necessary or advisable, in its sole discretion and without the consent of

Participant, to comply with Code Section 409A or to otherwise avoid imposition of any additional tax or income recognition under Code Section 409A in connection to this PBRSU.

19. Governing Law. This Award Agreement will be governed by the laws of the State of Delaware, without giving effect to the conflict of law principles thereof. For purposes of litigating any dispute that arises under this PBRSU or this Award Agreement, the parties hereby submit to and consent to the jurisdiction of the State of Delaware, and agree that such litigation will be conducted in the state courts of the State of Delaware, or the federal courts for the United States for the District of Delaware, and no other courts, where this PBRSU is made and/or to be performed.

20. Clawback Policy. Notwithstanding anything to the contrary in the Award Agreement, all Units issued or issuable under this PBRSU shall be subject to any clawback policy adopted by the Company from time to time (including, but not limited to, any policy adopted in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act or other Applicable Laws), regardless of whether the policy is adopted after the Date of Grant or after the vesting and settlement of the Units.